

FACILITY NAME AND PERMIT NUMBER: MA0101613

Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086

See Table attached following page

**A.8. Pollution Concentrations:** Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants for which limits in sewage sludge have been established in 40 CFR Part 503 for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
ARSENIC			
CADMIUM			
CHROMIUM			
COPPER			
LEAD			
MERCURY			
MOLYBDENUM			
NICKEL			
SELENIUM			
ZINC			

**A.9. Certification.** Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of Form 2S you have completed and are submitting:

\_\_\_\_\_ Part 1 Limited Background Information packet

Part 2 Permit Application Information packet:

☒ Section A (General Information)

☒ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)

\_\_\_\_\_ Section C (Land Application of Bulk Sewage Sludge)

\_\_\_\_\_ Section D (Surface Disposal)

\_\_\_\_\_ Section E (Incineration)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Joseph J. Superneau Executive Director

Signature

Date signed

Telephone number

413-787-6256

Upon request of the permitting authority, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

**SEND COMPLETED FORMS TO:**



FACILITY NAME AND PERMIT NUMBER: MA0101613

Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/89  
OMB Number 2040-0086**B. GENERATION OF SEWAGE SLUDGE OR PREPARATION OF  
A MATERIAL DERIVED FROM SEWAGE SLUDGE**

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge.

**B.1. Amount Generated On Site.**Total dry metric tons per 365-day period generated at your facility: 10501 dry metric tons**B.2. Amount Received from Off Site.** If your facility receives sewage sludge from another facility for treatment, use, or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.

- a. Facility name Not Applicable
- b. Mailing Address \_\_\_\_\_
- c. Contact person \_\_\_\_\_
- Title \_\_\_\_\_
- Telephone number \_\_\_\_\_
- d. Facility Address (not P.O. Box) \_\_\_\_\_
- e. Total dry metric tons per 365-day period received from this facility: \_\_\_\_\_ dry metric tons
- f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics.
- \_\_\_\_\_
- \_\_\_\_\_

**B.3. Treatment Provided At Your Facility.**

- a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
- X Class A      \_\_\_\_\_ Class B      \_\_\_\_\_ Neither or unknown
- b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:
- Taulman-Weiss in-vessel compost process
- c. Which vector attraction reduction option is met for the sewage sludge at your facility?
- \_\_\_\_\_ Option 1 (Minimum 38 percent reduction in volatile solids)
- \_\_\_\_\_ Option 2 (Anaerobic process, with bench-scale demonstration)
- \_\_\_\_\_ Option 3 (Aerobic process, with bench-scale demonstration)
- \_\_\_\_\_ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
- X Option 5 (Aerobic processes plus raised temperature)
- \_\_\_\_\_ Option 6 (Raise pH to 12 and retain at 11.5)
- \_\_\_\_\_ Option 7 (75 percent solids with no unstabilized solids)
- \_\_\_\_\_ Option 8 (90 percent solids with unstabilized solids)
- \_\_\_\_\_ None or unknown



FACILITY NAME AND PERMIT NUMBER: MA0101613

Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086

## B.3. Treatment Provided At Your Facility. (con't)

- d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: Vector attraction reduction is achieved in the compost by meeting the time and temperature requirements listed in CFR 503.33 (b) (5)
- e. Describe, on this form or another sheet of paper, any other sewage sludge treatment or blending activities not identified in (a) - (d) above:

Complete Section B.4 if sewage sludge from your facility meets the ceiling concentrations in Table 1 of 40 CFR 503.13, the pollutant concentrations in Table 3 of 503.13, the Class A pathogen reduction requirements in 503.32(a), and one of the vector attraction reduction requirements in 503.33(b)(1)-(8) and is land applied. Skip this section if sewage sludge from your facility does not meet all of these criteria.

## B.4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements, and One of Vector Attraction Reduction Options 1-8.

- a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land: 0 dry metric tons
- b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away for application to the land?  
Yes ☒ No ☐

Complete Section B.5 if you place sewage sludge in a bag or other container for sale or give-away for land application. Skip this section if the sewage sludge is covered in Section B.4.

## B.5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

- a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: \_\_\_\_\_ dry metric tons
- b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

Complete Section B.6 if sewage sludge from your facility is provided to another facility that provides treatment or blending. This section does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this section if the sewage sludge is covered in Sections B.4 or B.5. If you provide sewage sludge to more than one facility, attach additional pages as necessary.

## B.6. Shipment Off Site for Treatment or Blending.

- a. Receiving facility name Clinton County Compost Facility
- b. Mailing address 205 Reeves Lane Road  
Plattsburgh, New York 12901
- c. Contact person Paul Lafond  
Title \_\_\_\_\_  
Telephone number 518-563-7731
- d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: 23,128



FACILITY NAME AND PERMIT NUMBER: MA0101613  
Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086

### B.6. Shipment Off Site for Treatment or Blending. (con't)

- e. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? ☐ Yes ☐ No

Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?

☒ Class A ☐ Class B ☐ Neither or unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:

N-Viro Alkaline Stabilization

- f. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? ☐ Yes ☐ No

Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

- ☐ Option 1 (Minimum 38 percent reduction in volatile solids)  
☐ Option 2 (Anaerobic process, with bench-scale demonstration)  
☐ Option 3 (Aerobic process, with bench-scale demonstration)  
☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)  
☐ Option 5 (Aerobic processes plus raised temperature)  
☐ Option 6 (Raise pH to 12 and retain at 11.5)  
☐ Option 7 (75 percent solids with no unstabilized solids)  
☐ Option 8 (90 percent solids with unstabilized solids)  
☐ None

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge.

- g. Does the receiving facility provide any additional treatment or blending activities not identified in (c) or (d) above? ☐ Yes ☒ No

If yes, describe, on this form or another sheet of paper, the treatment or blending activities not identified in (c) or (d) above:

- h. If you answered yes to (e), (f), or (g), attach a copy of any information you provide the receiving facility to comply with the "notice and necessary information" requirement of 40 CFR 503.12(g). See lab data on following page.

- i. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ☐ Yes ☒ No

If yes, provide a copy of all labels or notices that accompany the product being sold or given away.

Complete Section B.7 if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in:

- Section B.4 (it meets Table 1 ceiling concentrations, Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8); or
- Section B.5 (you place it in a bag or other container for sale or give-away for application to the land); or
- Section B.6 (you send it to another facility for treatment or blending).

### B.7. Land Application of Bulk Sewage Sludge.

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: \_\_\_\_\_ dry metric tons



FACILITY NAME AND PERMIT NUMBER:

MA0101613

Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/89  
OMB Number 2040-0086**B.7. Land Application of Bulk Sewage Sludge. (con't)**

- b. Do you identify all land application sites in Section C of this application? ☐ Yes ☐ No

If no, submit a copy of the land application plan with application (see instructions).

- c. Are any land application sites located in States other than the State where you generate sewage sludge or derive a material from sewage sludge? ☐ Yes ☐ No

If yes, describe, on this form or another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

\_\_\_\_\_  
\_\_\_\_\_

**Complete Section B.8 if sewage sludge from your facility is placed on a surface disposal site.****B.8. Surface Disposal.**

- a. Total dry metric tons of sewage sludge from your facility placed on all surface disposal sites per 365-day period: \_\_\_\_\_ dry metric tons

- b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?

☐ Yes ☐ No

If no, answer B.8.c through B.8.f for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one such surface disposal site, attach additional pages as necessary.

- c. Site name or number \_\_\_\_\_

- d. Contact person \_\_\_\_\_

Title \_\_\_\_\_

Telephone number \_\_\_\_\_

Contact is \_\_\_\_\_

☐ Site owner

☐ Site operator

- e. Mailing address \_\_\_\_\_

- f. Total dry metric tons of sewage sludge from your facility placed on this surface disposal site per 365-day period: \_\_\_\_\_ dry metric tons

**Complete Section B.9 if sewage sludge from your facility is fired in a sewage sludge incinerator.****B.9. Incineration.**

- a. Total dry metric tons of sewage sludge from your facility fired in all sewage sludge incinerators per 365-day period: 979 dry metric tons

- b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired? ☐ Yes ☒ No

If no, complete B.9.c through B.9.f for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one such sewage sludge incinerator, attach additional pages as necessary.

- c. Incinerator name or number: Veolia Water - Nagatuck

- d. Contact person: Doug Ritchie

Title: \_\_\_\_\_

Facility Manager

Telephone number: \_\_\_\_\_

203-723-1433

Contact is: \_\_\_\_\_

☐ Incinerator owner

☒ Incinerator operator



## FACILITY NAME AND PERMIT NUMBER:

MA0101613

Form Approved 1/14/89  
OMB Number 2040-0086

Springfield Regional Wastewater Treatment Facility

## B.9. Incineration. (con't)

e. Mailing address:

500 Cherry Street

Nagatuck, CT 06770

f. Total dry metric tons of sewage sludge from your facility fired in this sewage sludge incinerator per 365-day period: 979 dry metric tons

## Complete Section B.10 if sewage sludge from this facility is placed on a municipal solid waste landfill.

B.10. Disposal in a Municipal Solid Waste Landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.

See Attached.

- a. Name of landfill (1) Chicopee Sanitary Landfill
- b. Contact person (2) RCI Fitchburg/Westminster Landfill
- Title (3) Waste Managemnt of New Hampshire - TLR
- Telephone number Refuse disposal facility
- Contact is Landfill owner Landfill operator
- c. Mailing address \_\_\_\_\_
- d. Location of municipal solid waste landfill:
- Street or Route # \_\_\_\_\_
- County \_\_\_\_\_
- City or Town \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_
- e. Total dry metric tons of sewage sludge from your facility placed in this municipal solid waste landfill per 365-day period:
- \_\_\_\_\_ dry metric tons
- f. List, on this form or an attachment, the numbers of all other Federal, State, and local permits that regulate the operation of this municipal solid waste landfill.
- | Permit Number | Type of Permit |
|---------------|----------------|
| _____         | _____          |
| _____         | _____          |
| _____         | _____          |
- g. Submit, with this application, information to determine whether the sewage sludge meets applicable requirements for disposal of sewage sludge in a municipal solid waste landfill (e.g., results of paint filter liquids test and TCLP test)
- h. Does the municipal solid waste landfill comply with applicable criteria set forth in 40 CFR Part 258?
- \_\_\_\_\_ Yes \_\_\_\_\_ No



NPDES MA0103331 (CSO) and

Additional Information

NPDES MA 0101613

Part A.8 Pollutant Concentrations

Sludge Metals Data 2004

SPRINGFIELD REGIONAL WASTEWATER TREATMENT FACILITY  
METALS DATA 2004  
PRESS CAKE

NPDES 0101613  
OUTFALL 041

Month	AS		B		CD		CR		CU		PB		HG		MO		NI		ZN		SE	
	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit
January	ND	4.29	16.5	4.29	2.20	0.04	75.0	0.30	380	0.43	35.7	2.15	0.403	0.04	7.47	2.15	46.3	0.21	311	0.43	ND	4.29
February	ND	4.07	15.0	4.07	2.16	0.04	56.4	0.28	291	0.41	28.3	2.03	0.192	0.02	4.45	2.03	32.9	0.2	224	0.41	ND	4.07
March	ND	3.96	24.4	3.96	3.79	0.04	85.0	0.28	400	0.40	31.3	1.98	0.326	0.01	5.97	1.98	62.8	0.2	289	0.40	ND	5.95
April	ND	12.00	14.8	12.00	4.29	0.12	69.4	0.84	428	1.20	48.8	6.00	0.837	0.02	6.35	6.00	41.2	0.6	354	1.20	ND	12.00
May	ND	2.87	16.3	2.87	2.44	0.03	51.8	0.20	385	0.29	55.0	1.44	0.406	0.02	ND	1.44	31.3	0.14	309	0.29	ND	2.87
June	ND	3.11	12.3	3.11	2.00	0.03	38.9	0.22	267	0.31	25.4	1.55	0.223	0.01	4.94	1.55	22	0.16	192	0.31	5.20	3.11
July	ND	18.60	19.2	18.60	3.68	0.19	85.6	1.30	513	1.86	58.1	9.30	0.172	0.03	ND	9.30	40.2	0.93	498	1.86	ND	18.60
August	ND	5.18	19.9	5.18	4.29	0.05	90.9	0.36	633	0.52	63.1	2.59	0.229	0.02	8.13	2.59	38.2	0.26	562	0.52	ND	5.18
September	ND	11.00	33.6	11.00	4.18	0.11	89.1	0.77	666	1.10	67.3	5.48	0.173	0.01	11.50	5.48	39.9	0.55	616	1.10	ND	11.00
October	ND	19.40	28.9	19.40	4.07	0.19	60.4	1.36	447	1.94	36.5	9.68	0.447	0.02	ND	9.68	36.9	0.97	303	1.94	ND	19.40
November	ND	11.90	ND	11.90	3.60	0.12	60.3	0.83	401	1.19	36.8	5.96	0.902	0.02	ND	5.96	35.8	0.6	318	1.19	ND	11.90
December	ND	25.60	ND	25.60	3.58	0.26	55.2	1.79	442	2.56	55.2	12.80	1.880	0.047	ND	12.80	29.5	1.28	372	2.56	ND	25.60
Average	ND		16.7		3.36		68.2		438		45.1		0.516		4.07		38.1		362		ND	

All results are reported in mg/kg

Analytical Methods

SW 846 3050 / 6010 → AS, B, CD, CR, CU, PB, MO, NI, ZN, SE

SW 846 3050 / 7471 → HG

ND = NOT DETECTED





Question: 25-B6h

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

REPORT DATE 11/10/2004

U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001  
ATTN: JOHN COLBURN

CONTRACT NUMBER:  
PURCHASE ORDER NUMBER:

PROJECT NUMBER:

## ANALYTICAL SUMMARY

LIMS BAT #: LIMS-83340

JOB NUMBER: -

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

## PROJECT LOCATION:

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	
*2241	04B35463	SLUDGE	NOT SPECIFIED	tcip-metals-full	
*2241	04B35463	SLUDGE	NOT SPECIFIED	tcip-pestic-full	
*2241	04B35463	SLUDGE	NOT SPECIFIED	tcip-semivo-full	
*2241	04B35463	SLUDGE	NOT SPECIFIED	tcip-volati-full	
*2241	04B35464	SLUDGE	NOT SPECIFIED	tcip-herbic-full	SUBCONTRACTED
*2241	04B35465	SLUDGE	NOT SPECIFIED	8260 dry weight	
*2241	04B35465	SLUDGE	NOT SPECIFIED	8270 dry weight	
*2241	04B35465	SLUDGE	NOT SPECIFIED	solids (percent)	

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations :

AIHA 100033	AIHA ELLAP (LEAD) - 100033	
MASSACHUSETTS MA0100	NEW HAMPSHIRE NELAP 2516	NEW JERSEY NELAP NJ MA007 (AIR)
CONNECTICUT PH-0567	VERMONT DOH (LEAD) No. LL015036	ARIZONA AZ0648
NEW YORK ELAP/NELAP 10899	RHODE ISLAND (LIC. No. 112)	ARIZONA AZ0654 (AIR)

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

*Sondra S. Kocot* 11/10/04

SIGNATURE

DATE

Tod Kopyscinski  
Director of Operations

Sondra S. Kocot  
Quality Control Coordinator

Edward Denson  
Technical Director

\* See end of data tabulation for notes and comments pertaining to this sample

Springfield Regional Wastewater Treatment Facility  
NPDES 0101613 and MA0103331 (CSO)  
Outfall 041



39 Spruce Street \* 2nd Floor \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 1 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID: 04B35465

Sampled: 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P / F
Acetone	mg/kg dry wt	141.	11/02/04	MFF	0.412		
Acrolein	mg/kg dry wt	ND	11/02/04	MFF	0.165		
Acrylonitrile	mg/kg dry wt	ND	11/02/04	MFF	0.041		
tert-Amylmethyl Ether	mg/kg dry wt	ND	11/02/04	MFF	0.004		
Benzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
Bromobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Bromochloromethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Bromodichloromethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Bromoform	mg/kg dry wt	ND	11/02/04	MFF	0.010		
Bromomethane	mg/kg dry wt	ND	11/02/04	MFF	0.010		
2-Butanone (MEK)	mg/kg dry wt	114.	11/02/04	MFF	0.099		
tert-Butyl Alcohol	mg/kg dry wt	ND	11/02/04	MFF	0.165		
n-Butylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.006		
sec-Butylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
tert-Butylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.007		
tert-Butylethyl Ether	mg/kg dry wt	ND	11/02/04	MFF	0.004		
Carbon Disulfide	mg/kg dry wt	0.165	11/02/04	MFF	0.025		
Carbon Tetrachloride	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Chlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
Chlorodibromomethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Chloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
2-Chloroethylvinylether	mg/kg dry wt	ND	11/02/04	MFF	0.079		
Chloroform	mg/kg dry wt	0.017	11/02/04	MFF	0.016		
Chloromethane	mg/kg dry wt	ND	11/02/04	MFF	0.124		
2-Chlorotoluene	mg/kg dry wt	0.006	11/02/04	MFF	0.005		
4-Chlorotoluene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
1,2-Dibromo-3-Chloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.013		
1,2-Dibromoethane	mg/kg dry wt	ND	11/02/04	MFF	0.006		
Dibromomethane	mg/kg dry wt	ND	11/02/04	MFF	0.009		
1,2-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.007		

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 2 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID: 04B35465

Sampled: 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
1,3-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
1,4-Dichlorobenzene	mg/kg dry wt	0.014	11/02/04	MFF	0.007		
cis-1,4-Dichloro-2-Butene	mg/kg dry wt	ND	11/02/04	MFF	0.020		
trans-1,4-Dichloro-2-Butene	mg/kg dry wt	ND	11/02/04	MFF	0.017		
Dichlorodifluoromethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
1,1-Dichloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,2-Dichloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
1,1-Dichloroethylene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
cis-1,2-Dichloroethylene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
trans-1,2-Dichloroethylene	mg/kg dry wt	ND	11/02/04	MFF	0.007		
1,2-Dichloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.005		
1,3-Dichloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
2,2-Dichloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
1,1-Dichloropropene	mg/kg dry wt	ND	11/02/04	MFF	0.012		
cis-1,3-Dichloropropene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
trans-1,3-Dichloropropene	mg/kg dry wt	ND	11/02/04	MFF	0.004		
Diethyl Ether	mg/kg dry wt	ND	11/02/04	MFF	0.016		
Diisopropyl Ether	mg/kg dry wt	ND	11/02/04	MFF	0.004		
1,4-Dioxane	mg/kg dry wt	ND	11/02/04	MFF	0.412		
Ethyl Benzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
Ethyl Methacrylate	mg/kg dry wt	ND	11/02/04	MFF	0.007		
Hexachlorobutadiene	mg/kg dry wt	ND	11/02/04	MFF	0.011		
2-Hexanone	mg/kg dry wt	0.446	11/02/04	MFF	0.080		
Iodomethane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
Isopropylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
p-Isopropyltoluene	mg/kg dry wt	0.015	11/02/04	MFF	0.006		
MTBE	mg/kg dry wt	ND	11/02/04	MFF	0.007		
Methylene Chloride	mg/kg dry wt	ND	11/02/04	MFF	0.124		
MIBK	mg/kg dry wt	ND	11/02/04	MFF	0.073		
Naphthalene	mg/kg dry wt	ND	11/02/04	MFF	0.008		

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 3 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID : 04B35465

Sampled : 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
n-Propylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.007		
Styrene	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,1,1,2-Tetrachloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
1,1,2,2-Tetrachloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.012		
Tetrachloroethylene	mg/kg dry wt	0.010	11/02/04	MFF	0.008		
Tetrahydrofuran	mg/kg dry wt	ND	11/02/04	MFF	0.041		
Toluene	mg/kg dry wt	10.5	11/02/04	MFF	0.006		
1,2,3-Trichlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,2,4-Trichlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,1,1-Trichloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
1,1,2-Trichloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.006		
Trichloroethylene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Trichlorofluoromethane	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,2,3-Trichloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.011		
1,2,4-Trimethylbenzene	mg/kg dry wt	0.032	11/02/04	MFF	0.008		
1,3,5-Trimethylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Vinyl Acetate	mg/kg dry wt	ND	11/02/04	MFF	0.135		
Vinyl Chloride	mg/kg dry wt	ND	11/02/04	MFF	0.008		
m + p Xylene	mg/kg dry wt	ND	11/02/04	MFF	0.011		
o-Xylene	mg/kg dry wt	ND	11/02/04	MFF	0.008		

Analytical Method:

SW846 8260

SAMPLES ARE CONCENTRATED BY PURGE & TRAP, FOLLOWED BY GC/MS TARGET COMPOUND ANALYSIS.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\*= See end of report for comments and notes applying to this sample

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 4 of 13

Purchase Order No.:

Project Location:

LIMS-BAT #: LIMS-83340

Date Received: 10/22/2004

Job Number: -

Field Sample #: 2241

Sample ID: 04B35465

Sampled: 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Acenaphthene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Acenaphthylene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Acetophenone	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Aniline	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Anthracene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benidine	mg/kg dry wt	ND	11/02/04	BGL	11.7		
Benzoic Acid	mg/kg dry wt	ND	11/02/04	BGL	5.03		
Benzo(a)anthracene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzo(a)pyrene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzo(b)fluoranthene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzo(g,h,i)perylene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzo(k)fluoranthene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzyl Alcohol	mg/kg dry wt	ND	11/02/04	BGL	3.35		
1,1-Biphenyl	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Bis(2-chloroethoxy)methane	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Bis(2-chloroethyl)ether	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Bis(2-chloroisopropyl)ether	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	8.50	11/02/04	BGL	1.68		
4-Bromophenyl phenyl ether	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Butylbenzylphthalate	mg/kg dry wt	ND	11/02/04	BGL	3.35		
4-Chloroaniline	mg/kg dry wt	ND	11/02/04	BGL	3.35		
4-Chloro-3-methylphenol	mg/kg dry wt	ND	11/02/04	BGL	3.35		
2-Chloronaphthalene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2-Chlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
4-Chlorophenylphenyl ether	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Chrysene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Dibenzofuran	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Dibenz(a,h)anthracene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
1,2-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,3-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

 JOHN COLBURN  
 U. S. WATER - SPRINGFIELD  
 190 M. STREET  
 AGAWAM, MA 01001

 11/10/2004  
 Page 5 of 13

Purchase Order No.:

 Project Location:  
 Date Received: 10/22/2004  
 Field Sample #: 2241

 LIMS-BAT #: LIMS-83340  
 Job Number: -

Sample ID : 04B35465

 Sampled : 10/20/2004  
 NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/F
1,4-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
3,3'-Dichlorobenzidine	mg/kg dry wt	ND	11/02/04	BGL	0.84		
2,4-Dichlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Diethylphthalate	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,4-Dimethylphenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Dimethylphthalate	mg/kg dry wt	ND	11/02/04	BGL	3.35		
Di-n-butylphthalate	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Di-n-octylphthalate	mg/kg dry wt	ND	11/02/04	BGL	3.35		
1,2-Dinitrobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,3-Dinitrobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,4-Dinitrobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
4,6-Dinitro-2-methylphenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,4-Dinitrophenol	mg/kg dry wt	ND	11/02/04	BGL	3.35		
2,4-Dinitrotoluene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,6-Dinitrotoluene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,2-Diphenylhydrazine (as Azobenzene)	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Fluoranthene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Fluorene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Hexachlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Hexachlorobutadiene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Hexachlorocyclopentadiene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Hexachloroethane	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Indeno(1,2,3-cd)pyrene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Isophorone	mg/kg dry wt	ND	11/02/04	BGL	1.68		
o-cresol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
m & p-cresol(s)	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2-Methylnaphthalene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Naphthalene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
2-Nitroaniline	mg/kg dry wt	ND	11/02/04	BGL	1.68		

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 6 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID: 04B35465

Sampled: 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
3-Nitroaniline	mg/kg dry wt	ND	11/02/04	BGL	1.68		
4-Nitroaniline	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Nitrobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2-Nitrophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
4-Nitrophenol	mg/kg dry wt	ND	11/02/04	BGL	3.35		
N-Nitrosodimethylamine	mg/kg dry wt	ND	11/02/04	BGL	1.68		
N-Nitrosodiphenylamine	mg/kg dry wt	ND	11/02/04	BGL	1.68		
N-Nitroso-di-n-propylamine	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Pentachlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Phenanthrene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Phenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Pyrene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Pyridine	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,2,4-Trichlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,4,5-Trichlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,4,6-Trichlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		

Analytical Method:

SW846 8270

SAMPLES ARE EXTRACTED IN METHYLENE CHLORIDE/ACETONE AND  
FOLLOWED BY GC/MS TARGET COMPOUND ANALYSIS.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 7 of 13

Purchase Order No.:

Project Location:

LIMS-BAT #: LIMS-83340

Date Received: 10/22/2004

Job Number: -

Field Sample #: 2241

Sample ID: 04B35465

Sampled: 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	19.9	10/28/04	LL			

Analytical Method:

SM 2540G

PERCENT OF SAMPLE REMAINING AFTER DRYING OVERNIGHT AT 103-105 DEGREES  
CENTIGRADE.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 8 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID: 04B35464

Sampled: 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
2,4-D	MG/L TCLP	ND	11/04/04	PEL	0.005	10	P
2,4,5-TP	MG/L TCLP	ND	11/04/04	PEL	0.001	1	P

Analytical Method:

SW846 1311/8150

SAMPLES ARE EXTRACTED FOR 18-24 HOURS AT pH 5.0, FOLLOWED BY LIQUID/LIQUID EXTRACTION AND DERIVATIZATION. ANALYSIS IS BY GAS CHROMATOGRAPHY WITH ELECTRON CAPTURE DETECTION.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 9 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID : 04B35463

Sampled : 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Arsenic	mg/l leachate	ND	11/02/04	KRL	0.10	5	P
Barium	mg/l leachate	0.31	11/02/04	KRL	0.05	100	P
Cadmium	mg/l leachate	ND	11/02/04	KRL	0.005	1	P
Chromium	mg/l leachate	ND	11/02/04	KRL	0.05	5	P
Lead	mg/l leachate	ND	11/02/04	KRL	0.02	5	P
Mercury	mg/l leachate	ND	11/01/04	JTB	0.00004	0.2	P
Selenium	mg/l leachate	ND	11/02/04	KRL	0.10	1	P
Silver	mg/l leachate	ND	11/02/04	KRL	0.05	5	P

## Analytical Method:

SW846 1311/6010 1311/7470

SW846 1311 TCLP EXTRACTION. SAMPLES ARE EXTRACTED FOR 18-24 HOURS INTO A pH 5.0 BUFFER SOLUTION TO PRODUCE A LEACHATE. WATER SAMPLES ARE FILTERED, NOT EXTRACTED.

SW846 6010 ARSENIC, BARIUM, CADMIUM, CHROMIUM, LEAD, SELENIUM AND SILVER LEACHATES ARE ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY.

SW846 7470 MERCURY LEACHATE IS ANALYZED BY COLD VAPOR (FLAMELESS) ATOMIC ABSORPTION SPECTROPHOTOMETRY.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

 JOHN COLBURN  
 U. S. WATER - SPRINGFIELD  
 190 M. STREET  
 AGAWAM, MA 01001

 11/10/2004  
 Page 10 of 13

Purchase Order No.:

Project Location:

LIMS-BAT #: LIMS-83340

Date Received: 10/22/2004

Job Number: -

Field Sample #: 2241

Sample ID: \*04B35463

 Sampled: 10/20/2004  
 NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
gamma-BHC (Lindane)	MG/L TCLP	ND	11/05/04	JB	0.001	0.4	P
Total Chlordane	MG/L TCLP	ND	11/05/04	JB	0.004	0.03	P
Endrin	MG/L TCLP	ND	11/05/04	JB	0.001	0.02	P
Heptachlor	MG/L TCLP	ND	11/05/04	JB	0.001	0.008	P
Heptachlor Epoxide	MG/L TCLP	ND	11/05/04	JB	0.001	0.008	P
Methoxychlor	MG/L TCLP	ND	11/05/04	JB	0.010	10	P
Toxaphene	MG/L TCLP	ND	11/05/04	JB	0.020	0.5	P

Analytical Method:

SW846 1311/3510/8081

 SAMPLES ARE EXTRACTED ACCORDING TO TCLP, FOLLOWED BY LIQUID/LIQUID  
 EXTRACTION INTO METHYLENE CHLORIDE/HEXANE, EVAPORATION AND ANALYSIS BY  
 GAS CHROMATOGRAPHY WITH ELECTRON CAPTURE DETECTION.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

 SPEC LIMIT = a client specified recommended or  
 regulatory level for comparison with data to  
 determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 11 of 13

Purchase Order No.:

Project Location:

LIMS-BAT #: LIMS-83340

Date Received: 10/22/2004

Job Number: -

Field Sample #: 2241

Sample ID: \*04B35463

Sampled: 10/20/2004

NOT SPECIFIED

Sample Matrix: SLUDGE

	Units		Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
							Lo	Hi	
2,4-Dinitrotoluene	MG/L	TCLP	ND	11/04/04	BGL	0.05		0.13	P
Hexachlorobenzene	MG/L	TCLP	ND	11/04/04	BGL	0.05		0.13	P
Hexachlorobutadiene	MG/L	TCLP	ND	11/04/04	BGL	0.05		0.5	P
Hexachloroethane	MG/L	TCLP	ND	11/04/04	BGL	0.05		3	P
o-cresol	MG/L	TCLP	ND	11/04/04	BGL	0.05		200	P
m & p-cresol(s)	MG/L	TCLP	0.86	11/04/04	BGL	0.05		200	P
Nitrobenzene	MG/L	TCLP	ND	11/04/04	BGL	0.05		2	P
Pentachlorophenol	MG/L	TCLP	ND	11/04/04	BGL	0.05		100	P
Pyridine	MG/L	TCLP	ND	11/04/04	BGL	0.05		5	P
2,4,5-Trichlorophenol	MG/L	TCLP	ND	11/04/04	BGL	0.05		400	P
2,4,6-Trichlorophenol	MG/L	TCLP	ND	11/04/04	BGL	0.05		2	P

Analytical Method:

SW846 1311/8270

SAMPLES ARE EXTRACTED INTO pH 5.0 BUFFER FOR 18-22 HOURS. THIS EXTRACT IS THEN EXTRACTED WITH METHYLENE CHLORIDE, FOLLOWED BY KUDERNA-DANISH EVAPORATIVE CONCENTRATION AND QUANTITATION BY GC/MS WITH TARGET COMPOUND ANALYSIS.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

 JOHN COLBURN  
 U. S. WATER - SPRINGFIELD  
 190 M. STREET  
 AGAWAM, MA 01001

 11/10/2004  
 Page 12 of 13

Purchase Order No.:

 Project Location:  
 Date Received: 10/22/2004  
 Field Sample #: 2241

 LIMS-BAT #: LIMS-83340  
 Job Number: -

Sample ID : \*04B35463

 Sampled : 10/20/2004  
 NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Benzene	MG/L TCLP	ND	11/01/04	BGL	0.006	0.5	P
2-Butanone (MEK)	MG/L TCLP	1.91	11/01/04	BGL	0.120	200	P
Carbon Tetrachloride	MG/L TCLP	ND	11/01/04	BGL	0.005	0.5	P
Chlorobenzene	MG/L TCLP	ND	11/01/04	BGL	0.006	100	P
Chloroform	MG/L TCLP	ND	11/01/04	BGL	0.008	6	P
1,4-Dichlorobenzene	MG/L TCLP	ND	11/01/04	BGL	0.008	7.5	P
1,2-Dichloroethane	MG/L TCLP	ND	11/01/04	BGL	0.009	0.5	P
1,1-Dichloroethylene	MG/L TCLP	ND	11/01/04	BGL	0.006	0.7	P
Tetrachloroethylene	MG/L TCLP	ND	11/01/04	BGL	0.004	0.7	P
Trichloroethylene	MG/L TCLP	ND	11/01/04	BGL	0.010	0.5	P
Vinyl Chloride	MG/L TCLP	ND	11/01/04	BGL	0.003	0.2	P

 Analytical Method:  
 SW846 1311/8260

SAMPLES ARE EXTRACTED WITH ZERO HEADSPACE (ZHE) INTO A pH 5.0 BUFFER SOLUTION FOR 18-22 HOURS. VOLATILE COMPONENTS ARE THEN QUANTITATED BY GC/MS WITH PURGE AND TRAP CONCENTRATION AND TARGET COMPOUND ANALYSIS.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



United Water Spfld. *Amot #83340*

## CHAIN OF CUSTODY RECORD

~~SPRINGFIELD WATER & SEWER DEPARTMENT REGIONAL WATER LABORATORY~~

Sampled by (print): OPS / John Colburn  
 Sampled by (signature): *John Colburn*  
 Sample Type: 2241 = Press Cake

Describe sample location:  
 \_\_\_\_\_  
 \_\_\_\_\_

Laboratory I.D.#	Sample Collection Period		G R A B	C O M P	pH*	Analysis Requested	Preservative
	Start Date/Time	Stop Date/Time					
2241	10/19/04 0600	10/20/04 0600				Full TCLP	Refrig.
24B35463-64-65						VOC + Semi VOC	

Relinquished By	Date	Time	Received By
<i>John W. Colburn</i> print: John Colburn	10/22/04	1:05 PM	<i>Lisa Veratti</i> print: Lisa Veratti Dagnoli
print: _____			print: _____
print: _____			print: _____
print: _____			print: _____
print: _____			print: <i>Full TCLP plus</i> <i>pm L. Veratti - VOC + Semi S</i>

Comments:

*sample has TCLP ~~plus~~ VOC + semi VOC (mls)*  
*\* sludge, press cake is matrix*

\* pH on site prior to preservation

Budget Account Number: \_\_\_\_\_

## Additional Information

1 of 58

<b>Name of Landfill</b>	Chicopee Sanitary Landfill
<b>Contact Person</b>	Jonathan Murray
<b>Title</b>	Sr. District Manager
<b>Telephone</b>	413-534-8741, ext 222
<b>Contact is Owner or Operator</b>	CT Valley: Owner/Operator
<b>Mailing Address</b>	600 New Ludlow Road South Hadley, MA 01075
<b>Location of Waste Disposal</b>	Chicopee Sanitary Landfill
<b>Street or Route #</b>	161 New Lombard Road
<b>County</b>	Hampden
<b>City or Town</b>	Chicopee
<b>State</b>	MA
<b>Zip Code</b>	01020
<b>Do you meet the requirements of 40 CFR Part 258?</b>	Yes
<b>Permit Number</b>	WO45517
<b>Permit Type</b>	Solid Waste ATO
<b>Method for Determining Compliance</b>	Analytical Data and SPW Permit Requirements
<b>Total Dry Metric Tons Delivered 2004</b>	2,705.60

Springfield Regional Wastewater Treatment Facility  
NPDES 0101613 and MA0103331 (CSO)  
Outfall 041

Question B.10.A

58 Pages





COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WESTERN REGIONAL OFFICE

JANE SWIFT  
Governor

BOB DURAND  
Secretary

LAUREN A. LISS  
Commissioner

NOV 15 2002

Waste Management, Inc.  
600 New Ludlow Road  
South Hadley, MA 01075  
Attention: Robert Magnusson, Regional Engineer

Re: Chicopee Landfill  
Special Waste Determination  
Resource Control Composting, Inc.  
Sludge Compost  
BWPSW14  
Transmittal # W032495  
File No. 02-061-002

Dear Mr. Magnusson:

The Department of Environmental Protection (the "Department") has reviewed a Special Waste Determination permit application to dispose of composted wastewater treatment plant sludge material at the Chicopee Landfill located off New Lombard Road in Chicopee, Massachusetts. The application was submitted on behalf of the landfill operator, Connecticut Valley Sanitary Waste Disposal, Inc. (CVSWD) by Waste Management, Inc. (WMI), the parent company of CVSWD. It is the Department's understanding that disposal of the material at the landfill under a temporary Special Waste permit is acceptable to the City of Chicopee.

The material consists of wastewater treatment plant (WWTP) sludge from the City of Springfield's Bondi Island WWTP, which is composted at the Resource Control Composting, Inc. (RCCI) composting facility, located adjacent to the WWTP. The sludge is mixed with woodchips and placed in an aerated composting vessel for a minimum of 21 days. Approximately 300 tons per week of composted sludge is produced each week at the RCCI facility. The sludge compost is sampled on a monthly basis for total metals, pH, ammonia, and other various parameters.

The average levels over the last seven months (April through October) of the sludge compost analytical results for the metals on the USEPA Toxicity Characteristic Leaching Procedure (TCLP) list, pH (corrosivity), and % solids were calculated, and are as follows:

- The average arsenic level was 3.5 milligrams/kilogram (mg/kg);

This information is available in alternate format by calling our ADA Coordinator at (617) 574-6872.

436 Dwight Street • Springfield, Massachusetts 01103 • FAX (413) 784-1149 • TDD (413) 746-6620 • Telephone (413) 784-1100



Printed on Recycled Paper

Waste Management  
Chicopee Landfill  
RCCI Sludge Disposal

- The average cadmium level was 2.5 mg/kg;
- The average chromium level was 57 mg/kg;
- The average lead level was 46 mg/kg;
- The average mercury level was 0.55 mg/kg;
- The average selenium level was 0.6 mg/kg;
- All of these average levels are less than the theoretical limits where TCLP tests would be required (20 times the TCLP limits);
- The average pH level was 7.64; and
- The average % solids was 42%.

The application states that the composted sludge will be transported to the landfill in trailer trucks. The composted sludge will not be stored or processed at the landfill. The composted sludge will be dumped at the working face of the landfill, spread into a lift one to two feet thick, and covered immediately with other municipal solid waste (MSW).

Department Determinations

The Department has reviewed the proposed Special Waste Determination permit application to dispose of the composted WWTP sludge material at the Chicopee Landfill in accordance with the Massachusetts Solid Waste Regulations 310 CMR 16.00 & 19.000. The Department approves the Special Waste permit, subject to the following conditions and requirements.

1. This approval is only for the subject composted WWTP sludge from the RCCI sludge compost facility (Bondi Island, Route 5, Agawam, MA) at the Chicopee Landfill, located off New Lombard Road in Chicopee, MA.
2. Based on the analytical data submitted, the sludge compost is not a characteristic hazardous waste, and can be accepted for disposal as a Special Waste at the landfill.
3. As proposed, upon arrival at the landfill, the sludge compost must immediately be buried with MSW and/or cover material at the working face.
4. As outlined in 310 CMR 19.061(d), the subject sludge compost accepted for disposal at the landfill shall comply with the following:
  - A. The sludge compost shall not contain free draining liquids;
  - B. The sludge compost shall contain a minimum of 20% solids; and
  - C. Odor-control methods shall be employed if the sludge compost is odor-producing.
5. The maximum amount of the sludge compost which may be accepted for disposal at the landfill in any calendar year shall not exceed 7,500 tons. This approval is only valid for a



period of one year following the date of this permit. If continued disposal is desired after that time, CVSWD must submit a written request to the Department to extend the permit approval period. The written request must outline the specific reasons why beneficial reuse of the sludge compost is not feasible versus disposal as a Special waste at the landfill.

6. The disposal of the sludge compost shall not create nuisance conditions, particularly nuisance dusts or odors. If nuisance odors are produced, additional odor-control methods (i.e., lime stabilization, etc.) shall be employed, or disposal of the sludge compost at the landfill shall be discontinued.
7. This permit is subject to review by the City of Chicopee (the City). CVSWD shall gain approval from the City prior to acceptance of the sludge compost as a Special Waste at the landfill.
8. The Department reserves the right to modify or rescind this approval at any time, should the conditions of this approval not be met, should nuisance conditions (particularly nuisance odors) be created, or should the Department otherwise determine that the disposal of the sludge compost at the landfill poses a threat to public health, safety or the environment.

Pursuant to 310 CMR 19.037(5), any person aggrieved by the issuance of this approval, except as provided by 310 CMR 19.037(4)(b), may file an appeal for judicial review of said decision in accordance with the provisions of M.G.L. c. 111, s. 150A and C. 30A not later than thirty [30] days following notice of this decision. Any aggrieved person intending to appeal the decision to the superior court shall provide notice to the Department of said intention to commence such action. Said Notice of Intention shall include the Department File Number (00-061-002) and shall identify with particularity the issues and reason(s) why it is believed the approval decision was not proper. Such notice shall be provided to the Office of General Counsel of the Department and the Regional Director for the regional office which made the decision.

The appropriate addresses to which to send such notices are:

General Counsel  
Department of Environmental Protection  
One Winter Street-Third floor  
Boston, 02108

Michael J. Gorski  
Regional Director  
Department of Environmental Protection  
436 Dwight Street - 4th Floor  
Springfield, MA 01103

No allegation shall be made in any judicial appeal of this decision unless the matter complained of was raised at the appropriate point in the administrative review procedures established in those regulations, provided that matter may be raised upon a showing that it is material and that it was not reasonably possible with due diligence to have been raised during such procedures or that matter

Waste Management  
Chicopee Landfill  
RCCI Sludge Disposal

4

sought to be raised is of critical importance to the public health or environmental impact of the permitted activity.

This Determination pertains only to the solid waste management aspect of the proposal and does not negate the responsibility of the owners or operators to comply with any other applicable state, local, or federal laws or regulations now or in the future.

If you have any questions concerning this matter, please contact Larry Hanson of this office, at #413-755-2287.

Sincerely,



Daniel Hall  
Section Chief, Solid Waste Management  
Western Region

Cc: Chicopee Board of Health  
Chicopee Dept. of Public Works – Stanley Kulig, Superintendent



# Additional Information

7 of 58

<b>Name of Landfill</b>	RCI Fitchburg/Westminster Landfill
<b>Contact Person</b>	Thomas Murray
<b>Title</b>	District Manager
<b>Telephone</b>	508-208-7872
<b>Contact is Owner or Operator</b>	District Manager Operator
<b>Mailing Address</b>	P.O. Box 406 Westminster, MA 01473
<b>Location of Waste Disposal</b>	Fitchburg/Westminster Sanitary Landfill
<b>Street or Route #</b>	Route 31; 101 Fitchburg Road
<b>County</b>	Worcester
<b>City of Town</b>	Westminster
<b>State</b>	MA
<b>Zip Code</b>	01473
<b>Do you meet the requirements of 40 CFR Part 258?</b>	Yes
<b>Permit Number</b>	W 050780
<b>Permit Type</b>	Solid Waste ATO
<b>Method for Determining Compliance</b>	Percent solids analytical data
<b>Total Dry Metric Tons Delivered 2004</b>	2,471.33

Springfield Regional Wastewater Treatment Facility  
 NPDES 0101613 and MA0103331 (CSO)  
 Outfall 041  
 Question B.10.A

F/W  
21.1



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Central Regional Office, 687 Main Street, Worcester, MA 01608

MITT ROMNEY  
Governor

KERRY HEALEY  
Lieutenant Governor

ELLEN ROY HERZFELDER  
Secretary

ROBERT W. GOLLEDGE  
Commissioner

Mr. Robert Magnusson  
Resource Control, Inc.  
124 Hartwell Street  
West Boylston, MA 01538

February 26, 2004

RE: SPECIAL WASTE DETERMINATION  
Application for: BWP SW 14, Major Special Waste Determination for the  
Fitchburg/Westminster Sanitary Landfill, Westminster.

Transmittal Number: W041513

Dear Mr. Magnusson:

The Department of Environmental Protection (the "Department") has received the Special Waste Determination Permit Application (the "Application") submitted by Resource Control Inc., on November 28, 2003, for the Fitchburg/Westminster Landfill Facility located on Route 31 in Westminster, Massachusetts. The Department completed its technical review of the Application listed above and has determined that the Application is technically complete. Accordingly, the Department hereby issues the attached Provisional Permit.

The Provisional Permit is issued pursuant to Massachusetts General Laws (M.G.L.) Chapter 111, Section 150A and 310 CMR 19.061: Special Waste, of the "Solid Waste Management Facility Regulations". Pursuant to the provisions of 310 CMR 19.061(5)(f), the DEP will accept written comments on this Permit from the local Board of Health, for fourteen (14) days from the date of notification. Unless rescinded or modified by the Department prior to the effective date, this Permit shall become effective twenty-one (21) days from the date of issuance of this Permit.

This information is available in alternate format. Call Dobra Delanty, ADA Coordinator at 1-617-292-2788.

<http://www.mass.gov/dep> • Phone (508) 792-7650 • Fax (508) 792-7621 • TDD (508) 767-2789

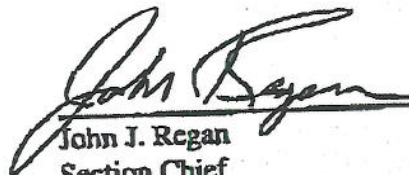
Printed on Recycled Paper

Resource Control Inc.  
Special Waste Determination BWP SW 14  
Provisional Permit # W041513  
Page 2 of 2

If you have any questions or comments regarding this matter, please write to me at the  
letterhead address or contact Mr. Mike Penny of this Office at (508) 792-7650 Ext. 2835.

Very truly yours,

2/26/04  
Date

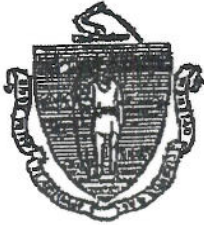
  
John J. Regan  
Section Chief  
Solid Waste Management Program

Encl: Provisional Special Waste Permit

cc: Paul Emond, BWP, DEP-Boston  
Fitchburg Board of Health  
Westminster Board of Health  
William C. Goodman, Brown and Caldwell

MTPUJR  
W:\Swm\Final\2003\Permits\2003\Fitch-Westmin LF Sw14 To





MITT ROMNEY  
Governor

KERRY HEALEY  
Lieutenant Governor

COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Central Regional Office, 827 Main Street, Worcester, MA 01608

ELLEN ROY HERZFELDER  
Secretary

ROBERT W. COLLEDGE  
Commissioner

**PROVISIONAL PERMIT**  
**SPECIAL WASTE DETERMINATION - MAJOR (BWP SW 14)**  
**Wastewater Sludge & Compost for Disposal at the Fitchburg/Westminster Landfill**

Provisional Permit Date: February 26, 2004  
Final Permit Date:

Applicant Name: Resource Control Inc.  
Mailing Address: 124 Hartwell Street  
West Boylston, MA 01583

Name of Facility: Fitchburg/Westminster Sanitary Landfill  
Facility Address: Fitchburg Road (Route 31)  
Westminster, MA 01473

DEP Region: Department of Environmental Protection  
("Department" or "DEP")  
Central Regional Office (CERO), Worcester

Transmittal #: W041513

**I. PERMIT APPLICATION INFORMATION**

**A. Reviews and Approvals Affecting Proposed Special Waste Determination**

1. Title/Description(s) of Approvals/Permits to be modified by this Permit:  
Not Applicable

**B. Application Information for BWP SW 14 Special Waste Determination**

1. Applicant Name: Resource Control Inc.
2. Transmittal Number: W041513
3. Start Date of Application: December 3, 2003

This information is available in alternate format. Call Debra Doherty, ADA Coordinator at 1-617-292-2788.

<http://www.mass.gov/dep> • Phone (508) 792-7650 • Fax (508) 792-7621 • TDD • (508) 767-2788

Resource Control Inc.  
Special Waste Determination BWP SW 14  
Provisional Permit  
Page 2 of 5

4. Date of Fee Receipt: December 3, 2003

5. Application Prepared by:

Brown and Caldwell  
48 Leona Drive, Suite C  
Middleborough, MA 02346  
Contacts: William C. Goodman (508) 923-0879

6. Title of Submittal(s) and Date of Receipt at DEP, CERO:

Application for Special Waste Determination - Major  
Wastewater Sludge & Sludge Compost  
Fitchburg/Westminster Sanitary Landfill  
Dated: November 2003  
Received by DEP-CERO: November 28, 2003

## II. SPECIAL WASTE DETERMINATION APPLICATION REVIEW AND APPROVAL

Application Number W041513 "The Application" complies with the requirements of 310 CMR 19.000, the Solid Waste Management Facility Regulations and was reviewed in accordance with the provisions of Section 19.061: Special Waste.

Resource Control Inc. (RCI), a subsidiary of Waste Management, is seeking approval under the requirements of 310 CMR 19.061, for the disposal of wastewater sludge and wastewater sludge compost at the Fitchburg/Westminster Sanitary Landfill in Westminster, Massachusetts. RCI is proposing to accept at the Fitchburg/Westminster facility wastewater sludge generated from the Bondi's Island Wastewater Treatment Plant and a wastewater sludge compost product from Resource Control Composting, Inc. both located in Agawam, Massachusetts.

Currently, the Fitchburg/Westminster Landfill accepts sludge from the Town of Hudson Wastewater Treatment Plant. The estimated total quantity of sludge/compost material to be landfilled at the Fitchburg/Westminster Landfill is 58,000 tons per year, or 185 tons per day. RCI proposes that the sludge compost tonnage be limited not to exceed more than 20 percent of the waste tonnage for any given day.

This document is a permit issued pursuant to Massachusetts General Laws (M.G.L.), Chapter 111, Section 150A and 310 CMR 19.000, and is subject to the conditions set forth below.



Resource Control Inc.  
Special Waste Determination BWP SW 14  
Provisional Permit  
Page 3 of 5

**III. GENERAL PERMIT CONDITIONS**

1. The use of this material shall not adversely affect the public health, safety or the environment.
2. The handling and disposal of this material shall be performed in compliance with other applicable local, state and federal laws and regulations.
3. The Department reserves the right to rescind, suspend or modify this permit by the imposition of additional conditions based upon a determination of actual, or the threat of, adverse impacts from the handling and/or disposal of this material.
4. RCI shall provide the Department, within a reasonable time, any information which the Department may request and which is deemed by the Department to be relevant in determining whether a cause exists to modify, revoke, or suspend a permit, or to determine whether RCI is complying with the terms and conditions of the permit.

**IV. SPECIFIC PERMIT CONDITIONS**

1. The handling and disposal of the wastewater sludge and wastewater sludge compost shall be in compliance with the requirements of 310 CMR 19.061(6) Management Requirements for Special Wastes.
2. The Operator shall instruct and train employees in proper handling and disposal procedures for the Special Waste approved to be managed by this Facility.
3. The Operator shall track specific tonnages from each source and provide a quarterly summary to the Department. Also included in the summary, shall be information that verifies that the sludge has been properly dewatered and meets the 20% solids disposal requirement.
4. Should nuisance odors or fugitive dust emissions develop as a result of the Beneficial Use activities described herein, appropriate measures to control odors and dust shall be instituted as soon as possible, but not later than forty-eight (48) hours, should conditions of excess odor and dust occur as a result of the Beneficial Use activities.

TXP - DEP did not properly edit



Resource Control Inc.  
Special Waste Determination BWP SW 14  
Provisional Permit  
Page 4 of 5

## V. RIGHT OF APPEAL

- A. **Right to Appeal** - Pursuant to 310 CMR 19.037(5), any person aggrieved by the issuance of this Permit may file an appeal for judicial review of said decision in accordance with the provisions of MGL, Chapter 111, Section 150A, and Chapter 30A not later than thirty [30] days following notice of this decision.
- B. **Notice of Appeal** - Any aggrieved person intending to appeal the decision to the superior court shall provide notice to the Department of intention to commence such action. Said notice of intention shall include the Department File Number or Permit Number and shall identify with particularity the issues and reason(s) why it is believed the approval decision was not proper. Such notice shall be provided to the Office of General Counsel of the Department and the Regional Director for the regional office that made the decision. The appropriate addresses to send such notices are:

Office of General Counsel  
Department of Environmental Protection  
One Winter Street-Third floor  
Boston, MA 02108

Regional Director  
Department of Environmental Protection  
Central Regional Office  
627 Main Street  
Worcester, MA 01608

No allegation shall be made in any judicial appeal of this decision, unless the matter complained of was raised at the appropriate point in the administrative review procedures established in those regulations, provided that matter may be raised upon a showing that it is material and that it was not reasonably possible with due diligence to have been raised during such procedures, or that the matter sought to be raised is of critical importance to the public health or environmental impact of the permitted activity.

Thank you, and if you have any questions or comments regarding this matter, please feel free to contact me or Mr. Mike Penny of this Office at (508) 792-7650 Ext. 2835.

John J. Regan  
Section Chief  
Solid Waste Management Program

Resource Control Inc.  
Special Waste Determination BWP SW 14  
Provisional Permit  
Page 5 of 5

MTPUJR

W:\Swm\Final\2003\Permits\Fitch-Westmin LF SW 14 To

Cc: Paul Emond, BWP, DEP-Boston  
Pittsburg Board of Health  
Westminster Board of Health  
William Goodman, Brown and Caldwell



## Additional Information

<b>Name of Landfill</b>	Waste Management of New Hampshire- TLR-III Refuse Disposal Facility
<b>Contact Person</b>	Alan Davis
<b>Title</b>	District Manager
<b>Telephone</b>	603-330-2165
<b>Contact is Owner or Operator</b>	Operator
<b>Mailing Address</b>	PO Box 7065 Gonic, NH 03839
<b>Location of Waste Disposal</b>	TLR-III Refuse Disposal Facility
<b>Street or Route #</b>	90 Rochester Neck Road
<b>County</b>	Strafford County
<b>City or Town</b>	Gonic
<b>State</b>	NH
<b>Zip Code</b>	03839
<b>Do you meet the requirements of 40 CFR Part 258?</b>	Yes
<b>Permit Number</b>	DES-SW-SP-95-001
<b>Permit Type</b>	Solid Waste
<b>Method for Determining Compliance</b>	Profiles and Analytical Data Review
<b>Total Dry Metric Tons Delivered 2004</b>	1,382.13

Springfield Regional Wastewater Treatment Facility  
 NPDES 0101613 and MA0103331 (CSO)  
 Outfall 041

Question B.10.a

**GENERAL INFORMATION**

---

**Waste Management of New Hampshire, Inc.  
Turnkey Recycling & Environmental Enterprises (T.R.E.E.)  
Non-Hazardous Solid Waste  
Audit Form**

**Facility Name:** Waste Management of New Hampshire, Inc.-  
TLR-III Refuse Disposal Facility

**Physical Location:** 90 Rochester Neck Road  
Rochester, NH

**Mailing Address:** 30 Rochester Neck Road  
P.O. Box 7065  
Gonic, NH 03839

**Corporate Address:** Waste Management, Inc.  
1001 Fannin Street, Suite 4000  
Houston, TX 77002  
713/512-6200

**EPA ID#:** NHD980914634 (as generator)

**NHDES Permit #:** DES-SW-SP-95-001

**General Phone #:** 603/330-2197

---

**Names and Titles of Key Personnel:**

Direct dial phone # is 603/330-(+4-digit extension)

Alan Davis	District Manager	extension 2166
Bill Howard	District Engineer	extension 2105
Ellen Bellio	Technical Manager	extension 2170
Victor Rivera	Approvals Coordinator	extension 2165

**Waste Management of New Hampshire, Inc.  
Turnkey Recycling & Environmental Enterprise (TREE)  
Customer Audit Information**

**GENERAL INFORMATION****FACILITY NAME:**

Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility (TLR-III RDF)

**PHYSICAL LOCATION:**

90 Rochester Neck Road  
Rochester, NH

**MAILING ADDRESS:**

30 Rochester Neck Road  
P.O. Box 7065  
Gonic, NH 03839

**NHDES SWF PERMIT NO.:**

DES-SW-SP-95-001

**PHONE NUMBERS:**

603/330-2197 (General Number)  
800/379-2783 (Special Waste only)

**PRINCIPAL CONTACTS:**

Alan Davis	District Manager	603/330-2166
Bill Howard, P.E.	District Engineer	603/330-2105
Ellen Bellio	Technical Manager	603/330-2170

**PARENT CORPORATION:**

Waste Management, Inc.  
1001 Fannin Street, Suite 4000  
Houston, TX 77002

**FINANCIAL INFORMATION****FORM OF MANAGEMENT:**

Corporation

**DUNN & BRADSTREET NUMBER:**

04577416 (prior to merger with USA Waste)  
Annual Report or SEC Form 10K available upon request.

**ADMINISTRATIVE INFORMATION****KEY ENVIRONMENTAL****PERSONNEL:**

The following is a summary of the qualifications of key facility personnel involved in the environmental management of wastes:

*Alan Davis: District Manager* - As District Manager, Mr. Davis is responsible for the day to day operation of the WMNH-TREE facility. Prior to becoming District Manager, he served as Site Manager for Waste Management's CWM Chemical Services in Model City, NY and has held various management positions with Waste Management throughout the Northeast. Mr. Davis holds a BT in Civil/Environmental Engineering and is a Grade IV NH DES Certified Solid Waste Operator.

*Bill Howard, P.E.; District Engineer* - As District Engineer for WMNH-TREE, Mr. Howard is responsible for assisting with site engineering and for environmental compliance activities associated with ensuring that the facility is operated in compliance with all applicable statutes and regulations as well as company policies and procedures. Mr. Howard holds a BS in Civil Engineering and an MS in Environmental Engineering. He is also a registered Professional Engineer, a Certified Hazardous Materials Manager (CHMM), and a Grade IV NH DES Certified Solid Waste Operator.

**REGULATORY INFORMATION****EPA Identification Numbers:**

NHD980914634 (WMNH-TREE as a generator)  
NHD510014210 (WMNH-Gas Recovery Facilities as a generator)



**APPLICABLE OPERATING PERMITS****Turnkey Landfill of Rochester - I (TLR-I):**

<u>Permit Description</u>	<u>Issuing Agency</u>	<u>Permit Number</u>	<u>Issue Date</u>
Sanitary Landfill	Dept. of Public Health		June 21, 1979
Landfill Expansion	Dept. of Public Health		August 3, 1981
Vertical Expansion	DES Waste Management Division	DES-SW-87-023	June 23, 1987
Phase III Modification	DES Waste Management Division	DES-SW-87-024	July 21, 1988
Groundwater Release Detection	DES Water Supply & Pollution Control	GWP-198706010-R-002	October 13, 1997

**Turnkey Landfill of Rochester - II (TLR-II):**

<u>Permit Description</u>	<u>Issuing Agency</u>	<u>Permit Number</u>	<u>Issue Date</u>
Secure Solid Waste Landfill	DES Waste Management Division	DES-SW-88-019	June 14, 1988
NPDES Storm Water General Permit	US Environmental Protection Agency	NHR05A534	March 21, 2001
Groundwater Release Detection	DES Water Supply & Pollution Control	GWP-198706006-R-003	July 8, 1998

**TLR-III Refuse Disposal Facility (TLR-III RDF):**

<u>Permit Description</u>	<u>Issuing Agency</u>	<u>Permit Number</u>	<u>Issue Date</u>
Wetlands Board Permit	DES Wetlands Board	93-750	August 31, 1993
Site Specific	DES Water Supply & Pollution Control	WPR-4179-C	April 28, 2000
Solid Waste Management Facility	DES Waste Management Division	DES-SW-SP-95-001	April 10, 1995
NPDES Storm Water General Permit	US Environmental Protection Agency	NHR05A534	January 28, 2001
Groundwater Release Detection	DES Water Supply & Pollution Control	GWP-198706010-R-002	October 13, 1997

**Gas Recovery Facility I:**

<u>Permit Description</u>	<u>Issuing Agency</u>	<u>Permit Number</u>	<u>Issue Date</u>
Flare #1	DES Air Resources Division	PO-BP-2545	May 18, 1998
Engine #1	DES Air Resources Division	PO-B-1821	May 18, 1998
Engine #2	DES Air Resources Division	PO-B-1822	May 18, 1998
Engine #3	DES Air Resources Division	PO-B-1823	May 18, 1998
Engine #4	DES Air Resources Division	PO-B-1824	May 18, 1998
Flare #2	DES Air Resources Division	PO-B-1927	May 18, 1998
Flare #3	DES Air Resources Division	TP-B-0482	November 26, 2001
Flare #4	DES Air Resources Division	TP-B-0487	August 22, 2002

**Gas Recovery Facility II:**

<u>Permit Description</u>	<u>Issuing Agency</u>	<u>Permit Number</u>	<u>Issue Date</u>
Turbine #1	DES Air Resources Division	PO-B-2010	April 2, 2001
Turbine #2	DES Air Resources Division	PO-B-2001	April 2, 2001

**TREE (Facility-wide):**

<u>Permit Description</u>	<u>Issuing Agency</u>	<u>Permit Number</u>	<u>Issue Date</u>
Facility VOC Emissions Permit	DES Air Resources Division	PQ-BP-2727	October 25, 1996

**Leachate Treatment Plant:**

<u>Permit Description</u>	<u>Issuing Agency</u>	<u>Permit Number</u>	<u>Issue Date</u>
Industrial Discharge Agreement	City of Rochester, Dept. of Public Works	RIDA 00-015	January 1, 2001

**ENVIRONMENTAL REGULATORY CONTACTS**

Solid Waste Permitting: Michael Guilfooy, P.E.

NH Department of Environmental Services  
Waste Management Division  
Permitting and Design Review Section  
603/271-6467

Groundwater Quality: Rebecca Lawrence

NH Department of Environmental Services  
Water Supply and Pollution Control Division  
Groundwater Protection Bureau  
603/271-6573

## Air Quality:

Elizabeth Nixon

NH Department of Environmental Services  
Air Resources Division  
603/271-0883  
603/271-6793

Michele Andy

## Industrial Discharge:

David Green

City of Rochester  
Department of Public Works  
603/332-8950

ENVIRONMENTAL COMPLIANCE STATUS

Neither Waste Management of New Hampshire, Inc. - Turnkey Recycling & Environmental Enterprise (WMNH-TREE) nor any of its employees have been charged with an environmental regulatory violation, non-compliance with any permit, or been fined within the last 10 years. There is no existing or pending litigation involving WMNH-TREE or its employees. There are no current or pending regulatory actions by federal, state, or local environmental officials alleging non-compliance with existing environmental regulations.

FACILITY DESCRIPTION

## LOCATION:

T.R.E.E. is located in the City of Rochester, Strafford County, New Hampshire on Rochester Neck Road approximately 1 mile southwest of the intersection of Rochester Neck Road and Route 125.

## TOTAL ACREAGE:

Approximately 1,216+/- acres

ACRES DEDICATED TO  
WASTE MANAGEMENT:

TLR-I (closed) - 49 acres  
TLR-II (closed) - 51 acres  
TLR-III RDF (active) - 106 acres  
Liquid Solidification located within the TLR-III RDF.

METHOD OF  
WASTE DELIVERY:

Wastes materials are accepted at T.R.E.E. via:

Roll-off containers  
Dump trucks  
Dump trailers  
Box vans

Tankers (for liquids)  
Vacuum trucks  
Drums (for solids and liquids)  
Other miscellaneous non-bulk containers

Note: This list is not all inclusive. Contact WMNH-TREE if you have any questions regarding the acceptability of a particular type container.

## SITE HISTORY:

The property which now encompasses WMNH-TREE was formerly used for agricultural purposes, for sand and gravel operations or was undeveloped. Solid waste disposal activities began at this site in 1979 with the construction and operation of the TLR-I Landfill, which was the first lined landfill permitted in the State of New Hampshire. Waste Management acquired TLR-I Landfill in 1983. TLR-I was filled and the final cover system completed in October 1992.

In 1988, the TLR-II Landfill was permitted with a double 60 mil HDPE liner system which also incorporated a geocomposite clay liner (GCL) in the primary liner system. TLR-II began operations in 1990. TLR-II was filled and the final cover system completed in September 1997.

In 1995, the TLR-III Refuse Disposal Facility was also permitted with a double 60 mil HDPE liner system with a GCL component to the primary liner system. The



TLR-III RDF began operations in 1995, and will be able to accept waste until the year 2012.

Ancillary facilities include a material recovery facility, leachate treatment plant (completed in 1991), and two landfill gas recovery facilities (plants began operation in 1992 and 1997, respectively).

#### FACILITY HOURS OF OPERATIONS:

The landfill is opened to the general public during the following hours:

8:00 a.m. - 3:30 p.m.	Weekdays
8:00 a.m. - 11:30 p.m.	Saturdays

Asbestos Disposal (by appointment only):

7:00 a.m. - Noon	Tuesday-Friday
------------------	----------------

Solidification (by appointment only):

7:00 a.m. - Noon	Monday-Friday
------------------	---------------

#### SITE ACCESS:

Access to the TLR-III RDF is gained through a site entrance and gate located on the north side of Rochester Neck Road. All traffic must enter and exit by way of the TLR-III RDF scale house. Access to the perimeter of the landfill facilities is restricted by a 6-foot fence with gates located on the access road to the scale house. The gates and scale house are monitored during operating hours and locked at night or whenever the landfill is closed.

#### SPECIAL WASTE RECEIVING PROCEDURES:

All special wastes are pre-approved prior to acceptance at this facility (see Special Waste Approval Procedures). Customer, generator and waste stream information is maintained in the facility's scale system. Most special wastes are not required to be scheduled prior to shipment. Shipments of asbestos and liquid wastes requiring solidification, however, must be scheduled prior to disposal.

When a transporter delivers a special waste stream to the TLR-III RDF, the gate attendant will determine the nature of the special wastes by asking the generator or transporter the following questions:

- What is in this load?
- What are you hauling?
- Where is the load from?
- Who generated the waste?
- Has this waste material been previously approved for this site?

The hauler is also required to sign the weight slip which states "To the best of my knowledge this truck contains no hazardous or unacceptable waste". Unapproved special waste will be rejected and the procedures to receive approval (if acceptable) will be initiated.

#### PROJECTED SITE LIFE:

Disposal capacity will be available at the TLR-III RDF until the year 2012.

#### ACTIVE FACILITY OPERATIONS:

*TLR-III Refuse Disposal Facility* - Subtitle D landfill for the disposal of non-



hazardous wastes.

*Liquid Waste Solidification* - solidification of non-hazardous liquid wastes so that it no longer contains free liquids. Solidified wastes are disposed at the TLR-III RDF.

*Material Recovery Facility (MRF)* - recycling facility for the sorting and processing of up to 150 tons per day of recyclables materials (glass, aluminum, plastics, ferrous metals).

*Leachate Treatment Facility* - on-site pretreatment of up to 60,000 GPD of landfill leachate prior to discharge to the City of Rochester POTW.

*Landfill Gas Recovery Facilities* - 2 facilities which utilize landfill gas for the production of electricity. One plant consists of 4 reciprocating engines generating 800 kW each. The second plant includes 2 stationary gas turbines generating approximately 3.2 MW each.

#### WASTE TYPES MANAGED:

##### *Acceptable Wastes:*

- Municipal solid waste;
- construction and demolition debris;
- ash from incineration of municipal solid waste and medical/infectious waste;
- asbestos waste;
- sludge and septage solids;
- waste from industrial processes;
- waste from pollution control devices;
- residue from a spill of a non-hazardous chemical substance or commercial product;
- commercial products which are off-spec., outdated, or unused;
- waste produced from the demolition or dismantling of industrial equipment or facilities contaminated from the industrial process; and
- contaminated soils.

##### *Prohibited Wastes:*

- Hazardous waste as defined under federal law and the New Hampshire Hazardous Waste Rules
- polychlorinated biphenyls regulated under TSCA;
- CFCs;
- untreated medical or infectious waste;
- contained or free liquid wastes;
- contained gaseous wastes; and
- source, special nuclear or by-product material as defined by Atomic Energy Act of 1954, as amended.

#### SPECIAL WASTE APPROVAL PROCEDURES:

WMNH has established a special waste management program in an effort to identify the non-hazardous waste streams which require special management and to preclude the disposal of unacceptable materials.

The first step of special waste management is the identification of special wastes produced by our customers. The initial screening of waste streams generated by commercial or industrial customers is conducted by the WMNH's District Engineer, Approvals Coordinator, or company sales representatives. Special waste customers must complete a Generator's Waste Profile Sheet which characterizes the waste to be disposed.

Requests for approval are reviewed by the Technical Manager. The Technical Manager then approves the waste stream with or without special conditions for

the management of the waste or denies approval.

In addition, waste streams of existing customers are also periodically reviewed. This review may involve site visits, load inspections, or the re-examination of special waste management decisions.

#### SITE CHARACTERISTICS SURROUNDING LAND USE:

The land immediately surrounding the active landfill (i.e. TLR-III Refuse Disposal Facility) is owned by Waste Management. Other facilities include the TLR-I and TLR-II Landfills (both closed), a Material Recovery Facility (MRF), a leachate treatment plant, and 2 gas recovery (electrical generation) plants. Maintenance garages and a truck wash facility are located on-site. An active borrow area is located to the north of TLR-I. Residential properties along Rochester Neck Road are owned by Waste Management.

The landfill facilities and vicinity are zoned by the City of Rochester as Industry 4 (I-4). Permitted uses in this zone include industrial uses and solid waste management facilities including landfills and related ancillary activities.

#### HYDROGEOLOGIC CONDITIONS:

Based upon the extensive data base of hydrogeologic conditions at and in the vicinity of the TLR-III RDF, groundwater and surface water protection standards including minimum vertical separation from seasonal high groundwater table and bedrock; setback requirements from surface water bodies and other natural features; and other landfill siting limitations relating to geologic conditions are readily satisfied.

#### NEAREST SURFACE WATERS:

The waste management facilities at this site are bordered on the northeast by the Cocheco River and to the southwest by the Isinglass River.

#### FLOODING:

No portion of WMNH-TREE's waste management operations are located within the 100 year flood plain.

#### ENVIRONMENTAL MONITORING:

*Leachate Monitoring* - The TLR-III RDF liner system consists of a double geosynthetic liner with primary and secondary leachate collection and removal systems. The amount of leachate removed from the primary and secondary collection systems from each phase of the landfill is monitored by recording daily readings from flow meters. Leachate quality is monitored by collecting representative samples of leachate from each phase three times a year and the secondary collection system on an annual basis for analysis.

*Landfill Gas Monitoring* - Landfill gas monitoring is conducted to monitor methane levels between the limit of refuse and property lines as well as within adjacent on-site occupied structures. Gas monitoring consists of monitoring permanent gas probes and continuous monitors installed within occupied structures adjacent to the disposal area.

*Groundwater Monitoring* - Permanent groundwater monitoring wells are installed around the perimeter of the landfill facilities to monitor groundwater quality at the site in accordance with the facility's Groundwater Release Detection Permit. Samples are collected two times per year using EPA-approved protocols and analyzed for indicator parameters. During groundwater monitoring, the depth to groundwater is also measured.



## Turnkey Recycling & Environmental Enterprises

### APPROVAL CRITERIA

The following sampling analysis should be conducted according to "Test Methods of Evaluating Solid Waste," (SW846) for disposal at our facility by the following methods:

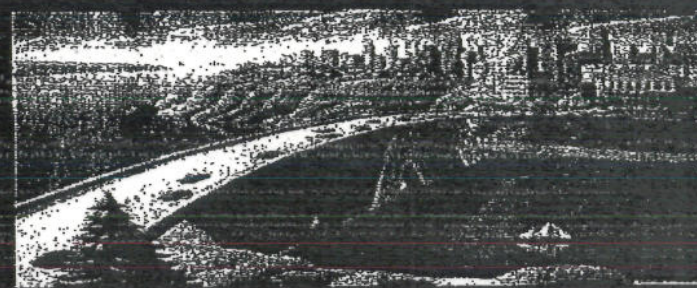
ANALYSIS REQUIRED	ANALYTICAL METHOD	ACCEPTANCE LIMIT
Ignitability / Flashpoint	EPA Method 1010, 1020A, 1030	Not ignitable per 40 CFR Part 261.21
Corrosivity / pH	EPA Method 9045C	Greater than 2 and less than 12.5
Reactive Sulfide	SW 846 7.3.4.1	Not reactive per NH Hazardous Waste Rules Env-Wm 403.05(b)
Reactive Cyanide	SW 846 7.3.3.2	Not reactive per NH Hazardous Waste Rules Env-Wm 403.05(b)
TCLP Volatile Organic Compounds (VOC's)	Preparation: EPA Method 1311 Analysis: EPA Method 8260B	EPA regulated TCLP thresholds as specified in 40 CFR Part 261.24 Table I
TCLP Semi-Volatile Organic Compounds (SVOC's)	Preparation: EPA Method 1311 Analysis: EPA Method 8270C	EPA regulated TCLP thresholds as specified in 40 CFR Part 261.24 Table I
Total Polychlorinated Biphenyls (PCB's)	EPA Method 8082	Non-TSCA regulated
TCLP Arsenic	Preparation: EPA Method 1311 Analysis: EPA Method 6010B, 7060A, 7061A	<5 mg/L
TCLP Barium	Preparation: EPA Method 1311 Analysis: EPA Method 6010B, 7080A, 7081	<100 mg/L
TCLP Cadmium	Preparation: EPA Method 1311 Analysis: EPA Method 6010B, 7130, 7131A	<1 mg/L
TCLP Chromium	Preparation: EPA Method 1311 Analysis: EPA Method 6010B, 7190, 7191	<5 mg/L
TCLP Lead	Preparation: EPA Method 1311 Analysis: EPA Method 6010B, 7420, 7421	<5 mg/L
TCLP Mercury	Preparation: EPA Method 1311 Analysis: EPA Method 7470A, 7471A, 7472	<0.2 mg/L
TCLP Selenium	Preparation: EPA Method 1311 Analysis: EPA Method 6010B, 7741A, 7742	<1 mg/L
TCLP Silver	Preparation: EPA Method 1311 Analysis: EPA Method 6010B, 7760A, 7761	<5 mg/L
TCLP Chlordane	Preparation: EPA Method 1311 Analysis: EPA Method 8081A	<0.03 mg/L
TCLP Endrin	Preparation: EPA Method 1311 Analysis: EPA Method 8081A	<0.02 mg/L
TCLP Heptachlor (and its epoxide)	Preparation: EPA Method 1311 Analysis: EPA Method 8081A	<0.008 mg/L
TCLP Lindane	Preparation: EPA Method 1311 Analysis: EPA Method 8081A	<0.4 mg/L
TCLP Methoxychlor	Preparation: EPA Method 1311 Analysis: EPA Method 8081A	<10 mg/L
TCLP Toxaphene	Preparation: EPA Method 1311 Analysis: EPA Method 8081A	<0.5 mg/L
TCLP 2,4-D	Preparation: EPA Method 1311 Analysis: EPA Method 8151A	<10 mg/L
TCLP 2,4,5-TP (Silvex)	Preparation: EPA Method 1311 Analysis: EPA Method 8151A	<1 mg/L

The parameters required for initial testing may be modified based on the "generator's knowledge" (i.e., documented knowledge of the materials or processes used to generate the waste, source of contamination, site history). The frequency or parameters required for periodic testing may also be modified (increased or decreased) based on the volume of waste generated, historic analytical data, as well as written "generator's knowledge."



# ANALYTICAL REQUIREMENTS Waste Management of NH

Turnkey Recycling & Environmental Enterprises  
P.O. Box 7065/ 30 Rochester Neck Road  
Rochester, New Hampshire 03839-7065  
Phone: 800/379-2783  
Fax: 603/330-2130



## Ash

	TCLP Metals (1311)	TCLP Volatiles (1311)	TCLP Semi-Volatiles (1311)	TCLP Pesticides (1311)	TCLP Herbicides (1311)	Total PCB's (8082)	Ignitability/Flashpoint (1010,1020A)	Corrosivity/pH (9045C)	Reactive Sulfide (7.3.4.1)	Reactive Cyanide (7.3.4.2)	Total Hexavalent Chromium (7198)	Total Trivalent Chromium	Total Petroleum Hydrocarbons (8100)	Free Liquids/Paint Filter (9095A)	Asbestos (Polarized Light Microscopy)	Sampling Frequency and/or Special Requirements
Fossil Fuel Boiler Ashes	X						X									Frequency- 1 sample per 250 tons or annually if ongoing. Generator must provide dust control as necessary.
Wood/Biomass Boiler Ash	X						X									Frequency- 1 sample per 250 tons or annually if ongoing. Generator must provide dust control as necessary.
Open Burn Ashes	X						X									Frequency- 1 sample per 250 tons or annually if ongoing. Generator must provide dust control as necessary.
MSW Incinerator Ash	X						X									Frequency- 1 sample per 250 tons or annually if ongoing. Generator must provide dust control as necessary.
Infectious Waste Incinerator Ash	X						X									Frequency- 1 sample per 250 tons or annually if ongoing. Generator must provide dust control as necessary.

## Contaminated Soil and Debris

	Pb	X					X						X			For metals, only TCLP lead is required. Waste must not be saturated- no free oil.
Gasoline Contaminated Soil and Debris	X	X	X				X	X	X	X	X		X			Waste must not be saturated. No free oil. WM cannot accept state regulated waste including WH01 or MAD1.
Used Oil Contaminated Soil and Debris	X	X					X						X			DES virgin spill report & certification stating that virgin petroleum is the only source of contamination required.
Virgin Petroleum Contaminated Soil and Debris	X	X	X	X	X	X	X	X	X	X						Frequency- 1 sample per 250 tons up to 1000 tons. If >1000 tons, one sample per 500 with a minimum of four.
Urban Fill Type Contaminated Soil and Debris	X	X	X	X	X	X	X	X	X	X						

## Sludge

	X						X						X			No free liquids for direct disposal. Solidification may be approved in advance for wastes containing free liquids.
Alum Sludge	X	X					X						X	X		No free liquids for direct disposal. Solidification may be approved in advance for wastes containing free liquids.
Car Wash Sludge	X	X												X		No free liquids for direct disposal. Solidification may be approved in advance for wastes containing free liquids.
Latex Sludge	X	X												X		No free liquids for direct disposal. Solidification may be approved in advance for wastes containing free liquids.
Laundry Sludge	X	X				X	X						X	X		No free liquids for direct disposal. Solidification may be approved in advance for wastes containing free liquids.
Leather Sludge	X	X					X				X	X	X			Acceptability per Env-Wm 401.03(b)(5) and 40 CFR 261.4(b)(6)(I).
POTW Sludge	X	X	X										X			No free liquids for direct disposal. Generator must provide odor control as necessary.

## Grit

													X			No free liquids for direct disposal. Generator must provide odor control as necessary.
POTW Grit/Screenings	X															Other parameters may be applicable depending on coating and surface to be blasted.
Sandblast Grit	X	X											X	X		Other parameters may be applicable depending on potential discharges to the catch basin/sewer pipe.

## Miscellaneous

	X	X	X			X										Must be non-hazardous in accordance with 40 CFR 261 and Env-Wm 400
Auto Fluff / Auto Shredder Residue	X	X	X			X										Must be non-hazardous in accordance with 40 CFR 261 and Env-Wm 400
Coal Tar / MGP Derived Wastes	X	X	X	X	X	X	X	X	X	X						Must be non-hazardous in accordance with 40 CFR 261 and Env-Wm 400
Landfill Leachate	X															Acceptability per Env-Wm 401.03(b)(5) and 40 CFR 261.4(b)(6)(I). TCLP Hexavalent Chromium <1 mg/L.
Leather Scraps	X	X	X			X	X						X			Must not be a state regulated waste. No free liquids.
Oily Solids / Oily Rags	X	X				X										Must be non-hazardous in accordance with 40 CFR 261 and Env-Wm 400
Street Sweepings	X	X				X										Must be non-hazardous in accordance with 40 CFR 261 and Env-Wm 400
Wood Chips / C&D Fines	X	X	X	X	X	X	X	X	X	X						Parameters determined based on generator knowledge of the process generating the waste, site history, etc.
Other Non-Hazardous Special Wastes	X	X	X	X	X	X	X	X	X	X						

24 of 58



## **SPECIAL WASTE PROGRAM**

---

### **GOAL:**

The goal of the special waste program is to provide secure landfill disposal options to our customers while ensuring that we operate in full compliance with our solid waste permits. The special waste program was implemented in an effort to identify suitable non-hazardous wastes as well as reliably screen out unacceptable wastes.

### **APPROVAL PROCESS:**

All special wastes require pre-approval. Customers and generators of special wastes may submit an approval package to the special waste department to be considered for disposal. This approval package typically consists of a Generator's Waste Profile Sheet, a Waste Stream Questionnaire, and any applicable Material Safety Data Sheets or analytical data. The profile package is reviewed by the Technical Manager, at which time it may be approved, with or without conditions. If additional information is needed to make a non-hazardous waste determination, the customer will be contacted with specific questions or requests.

Once a waste has been approved for disposal, a copy of the approval is provided to the customer. A standard condition of approval on all profiles is that a Service Agreement must be executed prior to acceptance of the waste. Since special waste types vary significantly, each separate project is priced individually with special consideration given to the density and volume of material to be disposed of.

With the profile approval and Service Agreement in place, profile information is entered into the facility's scale system. All information is specific to the profile number and ties all relevant project information together. Examples of this information include customer billing information, generator information, waste type, pricing, maximum tonnage, periodic testing requirements, etc. For this reason it is very important that all transporters are able to identify the waste they are carrying by its profile number. Profile numbers must be identified on all shipping documentation.

### **TYPICAL ACCEPTABLE WASTES:**

The following are examples of non-hazardous wastes typically permitted for disposal at Turnkey:

- ◆ Municipal Solid Waste (MSW)
- ◆ Construction & Demolition Debris (C&D)
- ◆ Ash from the Incineration of MSW, Fossil Fuels, Wood, Medical Waste
- ◆ Asbestos Containing Materials
- ◆ Municipal Wastewater Treatment Sludge
- ◆ Catch Basin Grit, Sewer Grit, Sandblast Grit
- ◆ Off-specification, Outdated or Unused Commercial Chemical Products
- ◆ Contaminated Soils
- ◆ Creosote Treated Wood
- ◆ Wood Chips, C&D Fines
- ◆ Drummed Wastes
- ◆ Industrial Process Wastes
- ◆ Leather Wastes
- ◆ Pulp & Papermill Sludges
- ◆ Agricultural/Organic Wastes
- ◆ Treated Medical Waste
- ◆ Liquid Wastes
- ◆ Decharacterized Soils

### **TYPICAL PROHIBITED WASTES:**

The following are examples of hazardous wastes prohibited from landfill disposal at Turnkey:

- ◆ Hazardous Wastes as defined under Federal and State Law
- ◆ Polychlorinated Biphenyls (PCB's) Regulated under TSCA (generally > 50 parts per million)



- ♦ Chlorofluorocarbons (CFC's)
- ♦ Untreated Medical or Infectious Wastes
- ♦ Contained Gaseous Wastes
- ♦ Source, Special Nuclear or By-Product Material as Defined by Atomic Energy Act of 1954, as Amended

**SCHEDULING:**

It is a good practice to call the day before so that we can verify that your profile is active and up-to-date. Most trucks delivering special wastes offload directly onto the working face of the landfill. However, trucks carrying asbestos, drummed wastes, liquid wastes for solidification, or contaminated soil MUST be scheduled in advance. Since these materials require special handling, advance notice allows us to alert our operations crew that these wastes are expected. Having the appropriate equipment and manpower available when your load arrives will prevent delays and help to ensure that your waste is managed properly.

**SHIPPING DOCUMENTATION:**

All asbestos loads are required to be accompanied by a Waste Shipment Record. Other special wastes are required by site policy to be transported on a Bill of Lading, Non-Hazardous Special Waste Manifest, Material Shipping Record, or equivalent. Please note that Turnkey is not permitted to receive hazardous wastes and therefore does not terminate Uniform Hazardous Waste Manifests. NO HAZARDOUS WASTE MANIFESTS WILL BE SIGNED AT THE FACILITY.

**FREQUENTLY ASKED QUESTIONS:**

**Who do I contact for special waste pricing or profiling information?** We recommend that you contact us by calling our toll-free customer service number 800-379-2783. (1-800-DR-WASTE) Typically you will reach the Approvals Coordinator, who can assist you by answering customer service questions, or by taking your information and having a sales representative call you back for pricing inquiries.

**Where do I send the approval package?** You may mail the package to Attn: Special Waste Department, Waste Management of NH, PO Box 7065, Gonic NH 03839 or sent it to us via facsimile at 603-330-2130.

**How long does it take to get an approval?** Turn around time for an approval depends on the completeness of the approval package. To expedite a quick decision, please send all relevant information together (including Generator's Waste Profile Sheet, Waste Stream Questionnaire, MSDS's if applicable, analytical testing, etc.). Most delays are the result of missing paperwork. Complete packages meeting our acceptance criteria will be approved for shipping the next day.

**Why does Waste Management require that the generator sign the Generator's Waste Profile Sheet? Can I sign it on behalf of my client?** The generator of the waste is ultimately responsible for characterizing their waste properly and managing it appropriately. By providing waste stream information and responding to critical certification questions, the generator is providing Waste Management with assurance that the information is accurate and complete. The exception to this is if a generator provides a written authorization which states that a specific individual or company may act as its agent and sign on its behalf.

**Can I use any laboratory for analytical testing?** Analytical results must come from a state-certified laboratory. Please provide the full report, including the Chain of Custody and the Quality Assurance / Quality Control portion. If only certain samples are relevant to the waste being profiled, please specify this in writing.

**What sampling frequency is required?** The most critical element in sampling is collecting a representative sample. Sampling techniques and methods should be in accordance with SW-846 "Test Methods for Evaluating Solid Waste". For characterizing fairly homogeneous wastes, we require the following frequency for guidance for material to Turnkey:



One representative sample per every 250 tons (for projects with a total volume <1000 tons)  
One representative sample per every 500 tons, with a minimum of four samples (for projects with a total volume >1000 tons)

**What parameters do I need to test for?** The parameters may vary from project to project, depending on the process generating the waste, site history, etc. The attached spreadsheet is provided for reference only- "Turnkey Typical Testing Requirements".

**What are the acceptance criteria for disposal at Turnkey?** The waste must be non-hazardous per federal regulations and per NH state rules. Turnkey cannot receive wastes generated outside New Hampshire that are regulated as hazardous wastes in their state of origin. Please refer to the attached chart "Turnkey Approval Criteria" for information.

**Who do I call to schedule loads?** Please contact our Approvals Coordinator, Victor Rivera at 800-379-2783, or fax the attached "Scheduling Sheet" to us at 603-330-2130. Please note: ALL LIQUIDS MUST BE SCHEDULED IN WRITING A MINIMUM OF 24 HOURS IN ADVANCE.

**What do I do if my waste contains free liquids?** Wastes containing free liquids are not permitted to be dumped directly in the landfill. However, Waste Management does have the ability to solidify liquid waste or solid waste containing free liquid on site at Turnkey. Non-hazardous liquids and semi-solids are offloaded into an 11,000 gallon steel pit. Amendment is used as a bulking agent to absorb liquids. The materials are mixed together with an excavator. Once enough amendment has been added to eliminate all free liquids, the material is excavated from the pit, loaded into a dump truck, and placed in the landfill for final disposal.

**What should my driver expect upon arrival at the landfill?** Transporters must be knowledgeable about the material they are hauling for their safety and the safety of others. The gate attendant will determine the nature of the special waste by asking the transporter the following questions:

*What type of waste are you hauling?*

*Who is the generator of the waste?*

*From where did the load originate?*

*What is the profile approval number for this waste?*

The scale attendants will examine the shipping documentation and enter the applicable waste profile number in the facility's scale system. The scale system will only allow access to profiles that are approved and current. Any profile that has expired, exceeded its tonnage limit, is overdue for periodic testing, or is not approved will not be allowed access to the landfill. If the profile is current and active, the truck is weighed and the driver proceeds down the access road to the spotter. The spotter will confirm the contents of the load with the driver, and direct him/her to the appropriate disposal area. Hardhats are required at all times while in the landfill. Any driver within fifty feet of the asbestos area must have a fit-tested NIOSH-approved respirator with HEPA filter for protection. After offloading, the transporter will return to the scalehouse to record the empty weight of the truck. A weight ticket indicating the truck's gross, tare and net weight will be given to the driver for signature. The signature of the driver certifies the following: "I certify under penalty of perjury that the information provided is true and correct to the best of my knowledge and belief. TO THE BEST OF MY KNOWLEDGE THIS TRUCK CONTAINS NO HAZARDOUS OR UNACCEPTABLE WASTE." The ticket and signed shipping document is returned to the driver. Copies of all paperwork are maintained at the facility.

---

If you have any questions or would like more information about the Special Waste Program, please don't hesitate to contact us at 800-379-2783.



MARSH USA INC.

## CERTIFICATE OF INSURANCE

CERTIFICATE NUMBER  
HOU-000404903-00

## INSURER

MARSH USA, INC.  
THANKSGIVING TOWER  
1601 ELM STREET  
SUITE 2100  
DALLAS, TX 75201  
Attn: Stephanie Story

A1 -02-04

WMR

## SURED

Waste Management of NH-Turnkey  
Recycling & Environmental Enterprises  
a division of Waste Management, Inc.  
18 Turnkey Way  
PO Box 7065  
Rochester, NH 03839

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER OTHER THAN THOSE PROVIDED IN THE POLICY. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES DESCRIBED HEREIN.

## COMPANIES AFFORDING COVERAGE

## COMPANY

A

AMERICAN INTERNATIONAL SPECIALTY LINES INS CO

## COMPANY

B

## COMPANY

C

## COMPANY

D

## COVERAGE

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE DESCRIBED HEREIN HAVE BEEN ISSUED TO THE INSURED NAMED HEREIN FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THE CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, CONDITIONS AND EXCLUSIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

OR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
	GENERAL LIABILITY				GENERAL AGGREGATE \$
	<input type="checkbox"/> COMMERCIAL GENERAL LIABILITY				PRODUCTS - COMPROP AGG \$
	<input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR				PERSONAL & ADVINJURY \$
	<input type="checkbox"/> OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE \$
					FIRE DAMAGE (Any one fire) \$
					MED EXP (Any one person) \$
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT \$
	<input type="checkbox"/> ANY AUTO				BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident) \$
	<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE \$
	<input type="checkbox"/> HIRED AUTOS				
	<input type="checkbox"/> NON-OWNED AUTOS				
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT \$
	<input type="checkbox"/> ANY AUTO				OTHER THAN AUTO ONLY:
					EACH ACCIDENT \$
					AGGREGATE \$
	EXCESS LIABILITY				EACH OCCURRENCE \$
	<input type="checkbox"/> UMBRELLA FORM				AGGREGATE \$
	<input type="checkbox"/> OTHER THAN UMBRELLA FORM				
	WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY				WE STATU- TORY LIMITS OTHER
	<input type="checkbox"/> THE PROPRIETOR/ PARTNER/EXECUTIVE OFFICERS ARE: <input type="checkbox"/> INCL <input type="checkbox"/> EXCL				EL EACH ACCIDENT \$
					EL DISEASE-POLICY LIMIT \$
					EL DISEASE-EACH EMPLOYEE \$
A	OTHER Pollution Legal & Environmental Impairment Liab	PLS 619 1671 'Claims Made & Reported Form'	01/01/02	01/01/04	Each Incident Limit 10,000,000 Aggregate Limit 20,000,000 SELF - INSURED RETENTION EACH INCIDENT 5,000,000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS (LIMITS MAY BE SUBJECT TO DEDUCTIBLES OR RETENTIONS)

## CANCELLATION

SHOULD ANY OF THE POLICIES DESCRIBED HEREIN BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE INSURER AFFORDING COVERAGE WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED HEREIN, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER AFFORDING COVERAGE, ITS AGENTS OR REPRESENTATIVES.

"FOR BID PURPOSES ONLY"

MARSH USA INC.

By: Stephanie S. Story



# CERTIFICATE OF INSURANCE

 Date: (MM/DD/YY)  
 12/21/2002
**PRODUCER**
 Lockton Insurance Agency of Houston, Inc.  
 5847 San Felipe, Suite 320  
 Houston, TX 77057  
 866-260-3538 (Phone)  
 866-492-1055 (Fax)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

**INSURERS AFFORDING COVERAGE****INSURED: WASTE MANAGEMENT, INC. and**
 Waste Management  
 PO Box 7065  
 18 Turnkey Way  
 Rochester, NH 03839
**Insurer A:** ACE American Insurance Company**Insurer B:** Indemnity Insurance Company of North America**Insurer C:****Insurer D:****Insurer E:****COVERAGES**

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY BE EXHAUSTED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	EFFECTIVE DATE	EXPIRATION DATE	LIMITS	
	<b>GENERAL LIABILITY</b>				EACH OCCURRENCE	\$ 5,000,000
A	X COMMERCIAL GENERAL LIABILITY	HDO G2058693A	1/1/2003	1/1/2004	FIRE DAMAGE (ANY ONE FIRE)	\$ 5,000,000
	X OCCURRENCE				MED EXP (PER PERSON)	
	X XCU INCLUDED				PERSONAL & ADV INJURY	\$ 5,000,000
	X ISO FORM CG 00 01 10 01				GENERAL AGGREGATE	\$ 6,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:				PRODUCTS/COMP. OP. AGG	\$ 6,000,000
	X PROJECT					
	X LOCATION					
	<b>AUTOMOBILE LIABILITY</b>				COMBINED SINGLE LIMIT (EACH ACCIDENT)	\$ 10,000,000
A	X ANY AUTO	ISA H07840263	1/1/2003	1/1/2004		
	ALL OWNED AUTOS					
	X HIRED AUTOS					
	X NON-OWNED AUTOS					
	X MCS-90					
	<b>EXCESS LIABILITY/UMBRELLA</b>				EACH OCCURRENCE	\$ 15,000,000
A	X OCCURRENCE	XOOG21740019	1/1/2003	1/1/2004	AGGREGATE	\$ 15,000,000
	CLAIMS MADE					
	<b>WORKERS' COMPENSATION and EMPLOYERS LIABILITY</b>				WORKERS' COMPENSATION	STATUTORY
B		WLR C43510885 SCF C43510927 (WI)	1/1/2003	1/1/2004	EL EACH ACCIDENT	\$ 1,000,000
A					EL DISEASE-EA EMPLOYEE	\$ 1,000,000
					EL DISEASE-POLICY LIMIT	\$ 1,000,000

REMARKS: DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT PROVISIONS:

 CHECK BOX ☒ BLANKET WAIVER OF SUBROGATION IS GRANTED IN FAVOR OF CERTIFICATE HOLDER ON ALL POLICIES WHERE AND TO THE EXTENT REQUIRED BY WRITTEN CONTRACT.  
☒ CERTIFICATE HOLDER IS NAMED AS AN ADDITIONAL INSURED (EXCEPT FOR WORKERS' COMP/EL) WHERE AND TO THE EXTENT REQUIRED BY WRITTEN CONTRACT.
**CERTIFICATE HOLDER:**
 "For Bid Purposes Only"  
 c/o Waste Management
**CANCELLATION:**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES. \*EXCEPT 10 DAYS NOTICE FOR NON-PAYMENT.

 AUTHORIZED REPRESENTATIVE
 





## DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095

603-271-3503

FAX 603-271-2867

TDD Access: Relay NH 1-800-735-2964



April 10, 1995

Steven J. Poggi, P.E.  
 Turnkey Recycling & Environmental Enterprises  
 P.O. Box 7066  
 97 Rochester Neck Road  
 Gonic, New Hampshire 03839

Subject: Standard Permit No. DES-SW-SP-95-001/TLR-III Refuse Disposal  
 Facility/97 Rochester Neck Road, Rochester

Dear Mr. Poggi:

Enclosed herewith is Standard Permit No. DES-SW-SP-95-001, which authorizes the landfilling of solid waste at the above noted location. This permit has been issued by the New Hampshire Department of Environmental Services, Waste Management Division (Department) pursuant to the provisions of RSA 149-M:10 and Part Env-Wm 314 of the New Hampshire Solid Waste Rules (Rules):

Please maintain a copy of this permit with your facility file records for future reference and conspicuously post a copy of the permit at the facility.

Questions regarding the issuance of this permit may be directed to Michael E. Guilfory, P.E. at (603) 271-2935. Questions regarding operational compliance may be directed to the district inspector for your region of the state, who may be contacted in the Department's Solid Waste Compliance Section at 271-2925.

Sincerely,

Philip J. O'Brien, Ph.D., Director  
 Waste Management Division

## Enclosures:

Permit No. DES-SW-SP-95-001  
 Commencement of Construction Notice Form  
 Commencement of Operations Notice Form  
 DES Permit Process Questionnaire

## cc w/encl.:

WMES-PA&ORS  
 WMCS-SWCS  
 WSPCD-GPB  
 PIP  
 City Of Rochester  
 SW District  
 Sanborn, Head and Associates

RESOURCES DIV.  
 64 No. Main Street  
 P.O. Box 2008  
 Concord, N.H. 03302-2008  
 Tel. 603-271-1370  
 Fax 603-271-1381

WASTE MANAGEMENT DIV.  
 6 Hazen Drive  
 Concord, N.H. 03301  
 Tel. 603-271-2900  
 Fax 603-271-2456

WATER RESOURCES DIV.  
 64 No. Main Street  
 P.O. Box 2008  
 Concord, N.H. 03302-2008  
 Tel. 603-271-3406  
 Fax 603-271-1381

WATER SUPPLY & POLLUTION CONTROL DIV.  
 P.O. Box 95  
 Concord, N.H. 03302-0095  
 Tel. 603-271-3503  
 Fax 603-271-2181





## SOLID WASTE MANAGEMENT FACILITY STANDARD PERMIT

as authorized by the

NH Department of Environmental Services, Waste Management Division (Department)  
pursuant to RSA 149-M and part Env-Wm 314 of the New Hampshire Solid Waste Rules

### I. PERMIT/FACILITY IDENTIFICATION:

Permit No: DES-SW-SP-95-001

Facility Type: Lined Landfill

Service Type: Commercial

Facility Name: TLR-III Refuse Disposal Facility

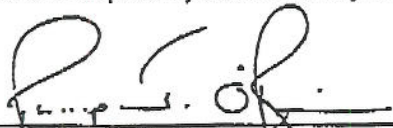
Facility Location: 97 Rochester Neck Road, Rochester, NH; Tax Map 267, Lot 2; SCRD Plan  
Drawer 41, Plan 99, 100, 101.

Permittee: Waste Management of New Hampshire, Inc.

Facility Description: This facility is a double lined landfill for the disposal of solid waste. It covers an area of approximately 100 acres to provide an estimated capacity to receive 19 million cubic yards of waste including cover materials, or approximately 10 million tons based on current landfilling practices. The facility will develop in 8 phases, the first six to be over virgin ground and the last two to be constructed over the permittee's closed landfill called TLR-I. The facility has a minimum 15 year life expectancy. The facility has an associated wood chipping operation for the production of waste-to-energy fuel for use by permitted facilities and/or bulking agent for use at permitted composting facilities.

### II. TERMS AND CONDITIONS: The permittee shall comply with the requirements of RSA 149-M, the New Hampshire Solid Waste Rules (Rules) and the attached terms and conditions, as amended.

### III. AUTHORIZATION: Pursuant to RSA Chapter 149-M:10 and Parts Env-Wm 304 and 314 of the Rules, this permit is hereby issued to the permittee as identified in Section I above to construct and operate the solid waste management facility identified in Section I above, pursuant to the requirements of Section II above. BY EXERCISING ANY RIGHTS UNDER THIS PERMIT, THE PERMITTEE HAS AGREED TO ALL TERMS AND CONDITIONS OF THE PERMIT, AS ATTACHED HERewith. Failure to comply with these terms and conditions could result in civil or criminal penalties, suspension or revocation of the permit. No liability is incurred by the State of New Hampshire by reason of any approval of this solid waste facility. Approval by the Department is based on plans and specifications supplied by the applicant. No warranty/ guarantee is intended or implied by reason of any advice given by the Department or its staff.

  
Philip J. O'Brien, Ph.D., Director  
Waste Management Division

April 10, 1995  
Date

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 1 of 24



### Section I: General Conditions

(1) Effective Date: This permit shall be effective when all requisite federal, state or local permits, licenses or approvals are obtained and maintained by the permittee.

(2) Basis of Approval / Supporting Documentation: This facility is permitted on the basis of information provided by the permittee in the below listed permit application documents, hereinafter collectively referred to as the Permit Application:

(a) Standard Permit Application documents prepared by GZA GEOENVIRONMENTAL, INC. on behalf of Waste Management of New Hampshire, Inc. / Turnkey Recycling and Environmental Enterprises (WMNH) (ref: WMD Log# 043-93; received 04/30/93);

(b) Supplemental permit application information prepared by Sanborn, Head and Associates and WMNH (ref: WMD Log# 065-93; received 06/22/93);

(c) Supplemental permit application information prepared by WMNH (ref: WMD Log# 101-93; received 07/23/93);

(d) Supplemental permit application information prepared by WMNH and Sanborn, Head & Associates (ref: WMD Log# 199400225; received 03/23/94);

(e) Seismic Assessment for TLR-III Refuse Disposal Facility prepared by GEOCOMP Corporation (ref: WMD Log# 199400191; received 05/16/94);

(f) Supplemental permit application information prepared by WMNH (ref: WMD Log# 199400214; received 06/16/94);

(g) MULTIMED liner equivalency analysis prepared by Sanborn, Head & Associates (ref: WMD Log# 199400213; received 06/21/94).

(h) Permit application amendment to address operating provisions for the wood processing function of this facility, as prepared by WMNH (ref: WMD Log# 19950007; received 12/27/94).



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 2 of 24



(I) Permit application amendment specifying in Section 7.4.1 of the facility's Operating Plan certain provisions for the acceptance of "special wastes", as prepared by WMNH (ref: WMD Log # 199500155; received 03/08/95).

(3) Citations and Definitions: This permit has been prepared on the basis of the New Hampshire Solid Waste Rules, Env-Wm 100-300 & 2100-2800, (Rules) as adopted on July 1, 1991 and amended on December 24, 1991. Accordingly, the meaning of specific terms in this permit are intended to conform to definitions set forth in parts Env-Wm 102 and 103 of the Rules.

(4) Regulatory Requirements: This facility shall comply with the requirements of RSA 149-M, the Rules, as may be amended from time to time, and the terms and conditions of this permit. Further, the development and operation of this facility is expected to conform to the proposal submitted in the Permit Application. Where conflicts may exist between the proposal presented in the Permit Application and the terms and conditions of this permit, the terms and conditions of this permit shall apply, subject, if necessary, to any clarification provided by the Department.

(5) Reservations and Limitations: Issuance of this permit is based on information provided by the permittee to the Department in the Permit Application. If any of the information is incomplete, false, misleading or inaccurate, the Department may suspend or revoke this permit pursuant to RSA 149-M:11, assess civil or criminal penalties, or modify the permit pursuant to Env-Wm 306.08.

(6) Determination of Public Benefit: Based on the projected 20 year solid waste disposal capacity needs for the State of New Hampshire on the date of permit issuance and based on the continuing resource recovery functions outlined in section 11.2.2 of the Permit Application, it is the determination of the Department under RSA 149-M:10-c, X that this facility can provide a substantial public benefit, as required by RSA 149-M:10-c, III and XI, if facility operations conform to the following conditions:

(a) As represented by the permittee in the Permit Application, the permittee shall operate this facility in a manner that provides 15 or more years of disposal capacity for New Hampshire solid waste generators. Although facility capacity may be depleted at a variable rate over the life of the facility, the permittee shall control the capacity depletion rate so as to fulfill the 15 year requirement in good faith, which shall preclude operating the facility at token capacity levels in order to achieve 15 years of life.

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 3 of 24



(b) The permittee shall operate this facility in a manner that is consistent with the requirements of RSA 149-M:22 and in a manner that otherwise assists the State in achieving the hierarchy of waste management methods and goals specified in RSA 149-M:1-a

(c) The permittee is required in its Annual Report (ref. Env-Wm 311.07(d)) to provide a capacity availability analysis which identifies the remaining facility life span based on current and historic rates of use.

(d) If the total projected facility life is less than 15 years, the permittee shall identify measures to be taken to adjust facility operations to provide at least 15 years of total facility life or, alternatively, the permittee shall demonstrate why adjustment is unnecessary to continue to provide the benefit to New Hampshire generators identified in paragraph (a).

(e) The permittee shall provide in its Annual Report, as required by Env-Wm 311.07(d)(3)-(4), information to clearly demonstrate:

(1) how facility operations have assisted and will continue to assist the State in achieving the hierarchy of waste management methods and goals specified in RSA 149-M:1-a; and

(2) how facility operations have complied with the requirements of RSA 149-M:22.

(f) If the Department is not satisfied that the information provided by the permittee per paragraphs (d) and (e) above meets the requirements of RSA 149-M:10-a, XI, the Department may, in accordance with Env-Wm 306.05, take one or more of the following actions:

(1) set a maximum disposal rate for the facility, subject to annual readjustment based on remaining facility capacity and actual State wide capacity need projections;

(2) stipulate the earliest date(s) that the permittee may construct a subsequent phase; and/or

(3) stipulate other appropriate controls for assuring that the facility



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 4 of 24



continues to provide a substantial public benefit.

(7) RCRA Subtitle D Considerations: The State of New Hampshire received a Final Adequacy Determination of the State/Tribal Municipal Solid Waste Program from the United States Environmental Protection Agency (USEPA) on February 14, 1995. As such, the Director of the Department's Waste Management Division is the State Director and so is currently the "Director of an Approved State" as provided for in 40 CFR Part 258. In accordance with that status, the Director is, therefore, certifying the following provisions of 40 CFR Part 258 relevant to this permit:

(a) Based on information submitted by the permittee in the Permit Application and relevant certifications related thereto by the permittee's consulting engineers that evaluated the proposed facility design for seismic impact, the permittee has demonstrated to the Director that all containment structures, including liners, leachate collection systems, and surface water control systems are designed to resist the maximum horizontal acceleration in lithified earth material for the site in accordance with 40 CFR 258.14, Seismic Impact Zones. Therefore, this facility is hereby authorized to be sited as proposed within this federally designated seismic impact zone.

(b) The Director is approving the design of the facility in accordance with 40 CFR Part 258.40(a)(1), (c) and (d). The relevant point of compliance for this provision, as specified by the Director, is no more than 150 meters from the waste management unit boundary and is on land owned by the owner of the facility.

(8) Responsibility: The permittee, operator and property owner, whether the same or different, shall individually and collectively ensure compliance with the terms of this permit, the Rules and all other applicable laws, regulations and ordinances, as amended.

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 5 of 24



## Section II: Scope of Permitted Activities

(1) Facility Type: This facility is permitted to be a solid waste landfill, as defined by Env-Wm 103.09, and is permitted to also include a waste wood chipping operation for the production of waste-to-energy fuel for use by permitted facilities and/or a bulking agent for use at permitted composting facilities.

(2) Anticipated Development: This facility is permitted on the basis of plans to develop the landfill in eight sequential phases. Phases 1-6 are to be located over virgin ground, whereas Phases 7-8 are proposed to be located adjacent to and above the permittee's existing landfill known as Turnkey Landfill of Rochester - I, (TLR-I). Development of Phases 7 and 8 is dependent on the Department's future review of information to be provided by the permittee pursuant to Section IV / Conditions 3-6 of this permit and on the Department's determination that such information meets all applicable requirements existing at the time of the review.

(3) Service Type and Area: This facility is a commercial facility, as defined by Env-Wm 102.33, and shall thereby provide capacity for New Hampshire generators pursuant to the requirements of Section I / Condition (6) of this permit.

(4) Facility Capacity: The physical capacity of this facility shall be as shown on plan sheet no. 26 of 53 (entitled "Final Grading Plan") in the Permit Application, which provides for the following anticipated usage measurements:

(a) The in-place volume of wastes, including cover materials, to be received at the facility is estimated to be 19,000,000 cubic yards which, based on current landfilling practices, is estimated to equate with 10,000,000 tons. The actual tonnage may be different, depending on such factors as actual waste composition, compaction effort and daily cover practices.

(b) The facility life expectancy is 15 years minimum, subject to the requirements of Section I/Condition (6).

(c) The expected tonnage to be received at the facility on a weekly basis is 12,100 tons per week, on average annually, subject to the requirements of Section I/Condition (6).



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 6 of 24



(5) Authorized Wastes for Landfilling: This facility is authorized to landfill solid waste only, subject to the following restrictions:

- (a) the waste is not a waste prohibited by Condition (9) of this Section;
- (b) the waste is landfilled in accordance with the requirements of Section I/Condition (6)(b); and
- (c) the waste is landfilled in accordance with the applicable inspection and management provisions specified in Condition (6) below.

(6) Inspection and Management Provisions by Authorized Solid Waste Type: The following solid waste types shall only be landfilled at this facility under the below described terms for inspection and management:

- (a) municipal solid waste, as defined in Env-Wm 103.23, subject to regular inspections to assure the exclusion of any prohibited waste as specified in Condition (9) below and to assure that any waste identified in paragraphs (c) -(i) below is properly separated and independently managed as required by paragraphs (c) - (i) below.
- (b) construction and demolition debris, as defined in Env-Wm 102.38, subject to regular inspections to assure the exclusion of any prohibited waste as specified in Condition (9) below and to assure that any waste identified in paragraphs (d)-(i) below is properly separated and independently managed as required by paragraphs (d)-(i) below.
- (c) bulky wastes, as defined in Env-Wm 102.23, subject to regular inspections to assure the exclusion of any prohibited waste as specified in Condition (9) below and to assure that any waste identified in paragraphs (d)-(i) below is properly separated and independently managed as required by paragraphs (d)-(i) below, and subject to the provisions of Env-Wm 2600, as applicable.
- (d) bottom ash, as defined in Env-Wm 102.22 and fly ash, as defined in Env-Wm 102.61 resulting from the incineration of:

- (1) municipal solid waste, subject to the provisions of Env-Wm 2602 or, alternatively, the provisions of any waiver to Env-Wm 2602 which may be

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 7 of 24



granted by the Department pursuant to Env-Wm 202 and Section VII/Condition (3) of this permit;

(2) medical/infectious waste, subject to the provisions of Env-Wm 2602; and/or

(3) biomass, subject to the provisions of Env-Wm 2602 and for which alternative management by agricultural landspreading is not available or appropriate for identified reasons, including ash quality, odors, weather conditions, or land use restrictions.

(e) asbestos waste, as defined by Env-Wm 102.15, subject to the provisions of Env-Wm 2601;

(f) treated infectious waste which has been autoclaved, or otherwise treated and disinfected in accordance with and so as to meet the standards for landfilling in Env-Wm 2604;

(g) virgin petroleum contaminated soils, subject to the provisions of the Department's "Interim Policy for the Management of Soils Contaminated from Spills/Releases of Virgin Petroleum Products", as amended.

(h) other non-hazardous solid waste as listed below, if determined to be non-hazardous based on generator knowledge/certification and/or representative sampling and analysis in accordance with all applicable federal and state regulations and in accordance with the provisions of Section 7.4.1 (Special Waste Program) of the facility's Operating Plan as provided in the Permit Application inclusive of the revisions dated March 8, 1995, and also subject to the recordkeeping requirements of Section VII/condition (5) of this permit. However, the permittee shall not exclusively rely on generator knowledge to determine that a waste is not hazardous unless the generator's knowledge is in fact substantial and preponderant to making such determination, for example when the generator is able to demonstrate that the waste results from a process not involving any hazardous materials or waste.

(1) sludge and septage solids for which alternative management options, such as composting, landspreading and/or incineration are not available or



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 8 of 24



appropriate for identified reasons;

(2) waste from industrial processes;

(3) waste from pollution control devices;

(4) residue from a spill of a non-hazardous chemical substance or commercial product or a waste listed above;

(5) contaminated residuals from the clean-up of a facility generating, storing, treating, recycling, or disposing wastes, chemical substances or commercial products listed above;

(6) commercial products which are off-specification, outdated, or unused;

(7) waste produced from the demolition or dismantling of industrial process equipment or facilities contaminated from the industrial process;

(8) contaminated soils and other media, other than virgin petroleum contaminated soil that shall instead be managed in accordance with the provisions of paragraph (g) herein; and

(9) other non-hazardous waste not specifically listed above that has the potential to be hazardous so as to require completion of a hazardous waste determination prior to acceptance, or that requires special handling so as to require the additional measures specified in Section 7.4.1 of the facility's Operating Plan as cited above prior to acceptance. Examples include non-hazardous coal tar materials, off-specification compost, spent sandblasting grit, fluorescent light bulbs, fine particulate (airborne) wastes and any waste that is not identifiable prior to analytical characterization.

(i) other non-hazardous, non-recyclable solid waste not specifically listed above, subject to written approval from the Department based on information provided by the permittee that identifies the source, type, quantity, age if known, physical characteristics and analytical characteristics of the waste.

(8) Authorized Waste for Processing: This facility is further authorized to receive for processing and off-site disposal at a permitted facility wood waste such as yard waste,

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 9 of 24



discarded pallets, lumber, utility poles, railroad ties and the like, that shall be temporarily stored at the facility outside of the liner system in a manner that is fire safe and will not otherwise contravene the Universal Environmental Performance Standards in Env-Wm 308 or interfere with the proper operation or closure of the landfill, and that is managed in accordance with the procedures given in Appendix 7H of the facility's Operating Plan.

(9) Prohibited Wastes: This facility shall not landfill any of the following wastes:

- (a) hazardous waste, including small quantity generator waste, as each is defined by federal law and the New Hampshire Hazardous Waste Rules, as amended;
- (b) polychlorinated biphenyls (PCBs) that are regulated under the Toxic Substances Control Act, as amended (ref. 40 CFR Part 761);
- (c) CFCs, as prohibited by Title 6 of the Clean Air Act, as amended (ref. 40 CFR Part 82);
- (d) wastes that are prohibited under RSA 149-M:22, or any other State or federal regulation. However, the facility may accept leaf and yard waste in accordance with the provisions of Condition (8) of this Section;
- (e) untreated medical or infectious wastes;
- (f) contained or free liquid wastes, except for leachate if approved by the Department pursuant to the provisions of Section VI/Condition (4);
- (g) contained gaseous wastes; and
- (h) source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended.



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 10 of 24



### Section III: Design Requirements

- (1) The final design of this facility shall conform to that which is presented in the Permit Application, as well as to the requirements of Env-Wm 309 and Env-Wm 2505.
- (2) In addition to the above, the final design shall include provisions to address all requirements of this permit.
- (3) Facility operations are contemplated to occur over no less than a fifteen year period on a phase by phase basis. During that fifteen year period, landfill construction and operation technologies and practices are expected to experience advancement/improvement. Therefore, as required by the Rules in Env-Wm 309.05(a), the permittee shall incorporate design enhancements each time a new phase is constructed or at other appropriate times, for example when the facility is capped, so as to employ best available technologies to the extent practicable.
- (4) The final design plans shall show the locations where the soils with less than  $1 \times 10^{-4}$   $\text{cm}^3/\text{sec}$  are to be placed in order to conform with Env-Wm 2505.03 (b).
- (5) The final design plans shall show high water alarms with elevations for all pumps and tanks.
- (6) Subject to the provisions of Env-Wm 306.05, or subject to any Rule amendments that may be authorized to require municipal solid waste landfills in New Hampshire to employ bioreactor technology for the rapid biological stabilization of landfilled wastes, the Department hereby reserves the right to require any of Phases 3-8 to be designed and constructed to include placement of a composite liner and leachate collection system that either meets the requirements of 40 CFR Part 258.40(a)(2) or meets an equivalent standard that the Director may have authority to and does approve, so as to allow leachate recirculation to occur in accordance with Env-Wm 2506.05(b)(4). See also Section VII/Condition (10) of this permit.
- (7) The final design of the liner and leachate collection systems in Phases 7 and 8 shall be determined on the basis of information to be provided by the permittee pursuant to Section IV/Conditions (3)-(6) of this permit. In the Permit Application, the proposed design is to rely on the capping system at the TLR-I Landfill to serve as the secondary

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 11 of 24



liner system for Phases 7 and 8, with potential tertiary containment to be provided by the TLR-I liner system. Since the future condition of the TLR-I liner and capping systems can not be ascertained at this time, nothing in this permit shall be misconstrued to mean that the Department has approved the proposed design. Instead, the Department has agreed, per the criteria established in Section IV/Conditions (3)-(6), to allow the proposed design concept to be justified for future approval at the time the actual construction is scheduled to occur in either Phases 7 or 8.



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 12 of 24



#### Section IV: Pre-Construction Requirements

(1) The permittee shall apply for and obtain written construction approval from the Department before commencing construction of any new phase of the facility; before modifying the approved construction plans for any existing phase of the facility except as provided by Env-Wm 310.09; and before commencing construction of any closure system component for any phase of the facility. Application for construction approval shall include the information listed below which for Phases 3-8 shall be submitted to the Department in triplicate no less than 90 days prior to the anticipated date of commencing construction of the applicable facility phase or phase component and for Phases 1-2 shall be submitted to the Department 10 working days prior to the anticipated date of commencing construction:

(a) complete final design plans, specifications and supporting documentation, prepared in accordance with Section III of this permit;

(b) the anticipated date that construction will commence;

(c) a closure cost estimate, to be supported by a preliminary closure plan that shows the final grades and typical capping details for fully closing the facility when the phase that is proposed for construction has reached capacity, as though no subsequent phases will be constructed. The cost estimate shall be itemized and the unit costs shall be representative of current market rates for the closure work to be performed by a third party, as per the requirements of Env-Wm 313. The cost estimate shall provide the basis for determining the amount of financial assurance required to satisfy Section VI/Condition (2)(f). Therefore, the financial assurance plan that will be companion to the closure cost estimate should be submitted to the Department in draft form after the closure cost estimate has been accepted and construction approval has been granted, in order that the Department may have adequate time to review the financial assurance plan prior to the time the permittee must satisfy the requirements of Section VI/Condition (2)(f).

(d) for Phases 3-8, a performance review of facility operations to date, to demonstrate to the satisfaction of the Department that construction and operation of the applicable facility phase or components will be compatible with existing



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 13 of 24



site/facility conditions and will not adversely effect relevant environmental quality, health or safety matters;

(e) for new construction in Phases 7 and 8, the information required by conditions (3)-(6) of this section of the permit; and

(f) other information if required by the Department for good cause to support the application for construction approval.

(2) Before initiating any approved construction activities, the permittee shall comply with the construction notification requirements of Env-Wm 310.03 by filing with the Department, in duplicate, all information required by Env-Wm 310.03 on a form provided by the Department entitled "NOTICE OF INTENT TO CONSTRUCT".

(3) Application to construct and later to commence operations in those portions of Phases 7 and 8 that overlay the TLR-I landfill shall be submitted as a Facility-Scale Research and Development project proposal per Env-Wm 319.04. The research and development project proposal shall be submitted with the construction plans and shall identify the process by which the area will be developed and the means to monitor the performance and integrity of the cap/liner system. Such measures shall include:

(a) monitoring the actual settlement of the liner system over TLR-I;

(b) calculating and/or monitoring the actual strain in the liner system; and

(c) comparing actual settlement against the predicted values as proposed in the Permit Application.

(4) Prior to obtaining construction approval for either Phases 7 or 8, the permittee shall provide necessary documentation to support and shall accordingly certify that there is no fugitive contamination present (groundwater or gas leaks) resultant to TLR-I. If such contamination is present then the permittee shall demonstrate that such contamination is clearly decreasing in concentration due to control measures or circumstances that will be unaffected by the proposed construction or operation of the facility. This demonstration shall, in part, be made through the sampling of groundwater and/or gas monitoring wells, in addition to showing that the reasons for the releases have been fully investigated and that corrective action has been implemented to the satisfaction of the Department.



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 14 of 24



(5) Prior to obtaining construction approval for either Phases 7 and 8, the permittee shall submit the results of a quality assurance/quality control (QA/QC) program for testing and determining the integrity and permeability of the existing clay cap over TLR-I which is proposed in the Permit Application to serve as the secondary liner for portions of Phases 7 and 8. As a condition of any construction approval that may be granted for either Phases 7 or 8, the permittee shall demonstrate to the satisfaction of the Department that the existing clay cap has an average thickness of 24 inches with a maximum hydraulic conductivity of  $1 \times 10^{-7} \text{ cm/sec}$  throughout, and that all cracks or other flaws shall be repaired to the same minimum standard. The permittee shall also submit the plans and specifications detailing all potential or necessary repair work.

(6) Prior to construction of Phases 7 and 8, the approved post closure monitoring/maintenance plan for the TLR-I Landfill shall be modified as necessary to accommodate the physical changes brought about by the building of TLR-III. In addition, the TLR-I post closure monitoring period shall be modified to coincide with that of TLR-III. The permittee shall submit the proposed modified post closure monitoring/maintenance plan, in triplicate, for Department review no less than 90 days prior to the anticipated date for constructing in either Phases 7 or 8.

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 15 of 24



#### **SECTION V: Construction Requirements**

- (1) Construction of this facility shall not commence prior to fulfilling the requirements of Section IV of this permit.
- (2) Construction of this facility shall require prior written approval by the Department, per Env-Wm 310.03. Written approval to construct shall be based on the information filed by the permittee in accordance with the provisions of Section IV of this permit.
- (3) Construction practices at this facility shall comply with Env-Wm 310.
- (4) Construction shall conform to the approved final design plans.
- (5) Construction shall comply with the terms and conditions of any written approval granted by the Department for commencement of construction.
- (6) No later than 90 days following completion of construction, the applicable record drawings shall be supplied to the Department, in duplicate, in accordance with the requirements of Env-Wm 310.14.



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 16 of 24



## **SECTION VI: Pre-Operation Requirements**

(1) Prior to commencing operations in any phase of the facility, the permittee shall obtain written approval to operate the phase by filing all of the information required by Condition (2) of this section at least 15 business days prior to the anticipated date of commencing operations in the new phase. The permittee shall provide such information in duplicate to the Department on and with a form provided by the Department entitled "NOTICE OF INTENT TO OPERATE".

(2) The NOTICE OF INTENT TO OPERATE shall include all of the following information as required by Env-Wm 311.04 and as otherwise required to satisfy any conditions of this permit that are prerequisite to operating this facility:

- (a) facility identification, including permit number;
- (b) date of intended commencement of operations;
- (c) a statement signed by the project engineer that to the best of his/her knowledge, the facility has been constructed in accordance with the permit, the Rules, and all approved plans and specifications and is fit for operation in accordance therewith;
- (d) the name, telephone number, certificate number and certification level of the certified operator(s);
- (e) the name and telephone number of the facility manager or other primary contact person; and
- (f) proof of financial assurance for the cost of closing the facility, as required by Section IX of this permit, which shall be in the form of finalized financial assurance documents that conform to a draft financial assurance plan and closure cost estimate that has received prior approval by the Department as provided by Section IV/Condition (1)(c).

(3) Prior to operating in Phase 3 of this facility, if the permittee elects to continue co-disposing of municipal solid waste incinerator ash, the permittee shall apply for a waiver

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 17 of 24



to the requirements of Env-Wm 2602.04, in accordance with the provisions of Env-Wm 202. The application for waiver shall include, as supporting documentation, a final report on the permittee's approved pilot demonstration project for ash co-disposal. The application shall be submitted to the Department in quadruplicate at least 60 days prior to the date the permittee requires approval. See also Section VII/Condition (8) of this permit.

(4) If, per Section III/Condition (6), leachate recirculation will be practiced at this facility, the permittee shall submit for Department approval proposed amendments to the facility's approved Operating Plan that satisfy the requirements of Env-Wm 2506.05(b)(4) for recirculating leachate to promote the rapid biological stabilization of landfilled wastes. The proposed amendments, if approved by the Department, shall thereby become conditions for facility operations.



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 18 of 24



## SECTION VII: Operating Requirements

(1) This facility shall operate in compliance with the following requirements, as in effect on the issue date of this permit and as may be amended subsequent to the issue date of this permit:

- (a) 40 CFR Part 258, as provided in the Department's "Guidance Document for the State Permitting of Municipal Solid Waste Landfills Regulated under Federal Rules (40 CFR 258) in New Hampshire";
- (b) RSA 149-M;
- (c) the New Hampshire Solid Waste Rules, (ref. Env-Wm 100-300 & 2100-2800), specifically including Env-Wm 308, 311, 2506 and 2600;
- (d) all terms and conditions of this permit;
- (e) the Operating Plan found in Section 7 of the Permit Application, except as amended by the terms and conditions of this permit;
- (f) the provisions of any other present or future requisite federal, state or local permits, licenses or approvals that may be required for the operation of this facility; and
- (g) the terms of any authorization to operate granted by the Department pursuant to Section VI/Condition (1) of this permit.

(2) Operating Capacity: The operating capacity of this facility shall be as specified in Section II/Condition (4) and in accordance with Section I/Condition (6) of this permit.

(3) Operating Information: The permittee shall provide to the Department such information as the Department may from time to time request concerning the status of facility operations.

(4) Operator Qualifications: In accordance with the provisions of RSA 149-M:11, II, the Department may revoke or suspend this permit if any of the conditions set forth in RSA

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 19 of 24



149-M:10, V-a applies to any facility operator.

(5) Monitoring and Reporting: In order to assure that the facility properly operates, certain data must be routinely collected, recorded and evaluated by the permittee. Therefore, the permittee shall collect all data that is necessary to assure that the facility is properly operating and that problems, should they arise, are expeditiously identified and corrected. The permittee shall maintain on file at the facility all required monitoring data, copies of which shall be made available to the Department if requested. As a minimum, the following monitoring and reporting requirements shall apply to the operation of this facility, until such time as the Department may notify the permittee of necessary changes, as determined by the Department on the basis of actual facility performance and/or changes in the Department's data base management needs.

- (a) The liquid level of the 500,000 gallon leachate storage tank is to be monitored by the permittee on a weekly basis and reported to the Department quarterly.
- (b) Groundwater monitoring and reporting shall occur in accordance with the facility's leak detection permit, issued through the Department's Water Supply and Pollution Control Division pursuant to the provisions of RSA 485-A.
- (c) Methane gas concentrations shall be measured monthly at all required monitoring points and reported to the Department quarterly, in a table format, in addition to being reported as required by Env-Wm 2506.07.
- (d) Leachate quantities shall be measured daily in accordance with Env-Wm 2506.05(e) and reported with precipitation information to the Department quarterly, in a format that presents monthly subtotals and the quarterly total.
- (e) The quantity of leachate pumped off the secondary liner shall be measured daily in accordance with Env-Wm 2506.05(e) and reported to the Department quarterly, in a format that presents each monthly subtotal and the quarterly total. In addition, the permittee shall calculate the 30-day average flowrate and shall accordingly comply with the secondary liner flowrate reporting and action limit requirements of Env-Wm 250.05(g).
- (f) Representative leachate analytical data shall be obtained and reported to the Department quarterly in accordance with the requirements of Env-Wm



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 20 of 24



2506.05(f).

(g) The head on the primary liner system shall be measured daily, from which monthly averages shall be calculated and reported quarterly.

(h) Annual reports shall be submitted to the Department in accordance with the requirements of Env-Wm 311.07.

(7) Pipe Removal: The pipes in the temporary sideslope swales as depicted in detail 22 on sheet 37 of the permitted design plans as provided in the Permit Application, must be removed prior to filling over this area.

(8) MSW Incinerator Ash Disposal: The disposal of municipal solid waste incinerator ash shall occur only in accordance with the following practices, as appropriate:

(a) monofilled in accordance with the requirements of Env-Wm 2602.04; or,

(b) co-disposed in manner consistent with the provisions of the permittee's approved pilot demonstration project for ash co-disposal at the permittee's TLR-II facility, to be formally concluded prior to operating Phase 3 of this facility (TLR-III) by filing a final report with the Department; or

(c) the terms and conditions of any waiver to the provisions of Env-Wm 2602 granted by the Department resultant to the successful completion of the permittee's aforementioned pilot demonstration project. Successful completion shall be determined by the Department on the basis of a final report for the pilot demonstration project, to be prepared and submitted by the permittee in triplicate, that evaluates the data obtained during the pilot demonstration project and accordingly concludes that the monofilling requirements of Env-Wm 2602.04 should be waived to allow MSW incinerator ash to be co-disposed under controlled operating practices.

(9) Stormwater Management: The stormwater piping configuration in Phases 5, 6 & 7 is approved pursuant to a determination of functional equivalency with Env-Wm 2505.09

(d), based on the proposed operation of the drainage system as well as the 500,000 gallon on-site leachate storage and treatment facilities. If leakage within the drainage system is detected as evidenced by lowering of static water levels in the riser pipes,

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 21 of 24



then use of the drainage system shall be discontinued until said leak is repaired. The permittee shall notify the Department when such conditions are identified and shall coordinate with the Department all necessary response action.

(10) Leachate Recirculation: At this time, leachate recirculation is apparently prohibited under 40 CFR Part 258.28 without the placement of a composite liner and leachate collection system that meets the standards of 40 CFR Part 258.40(a)(2). Consequently, the permittee is not permitted to recirculate leachate at this facility as was proposed in the Permit Application. Leachate recirculation may occur at this facility in accordance with the provisions of Section III/Condition (6) and Section VI/Condition (4) of this permit.



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 22 of 24



## SECTION VIII: Closure and Post Closure Requirements

- (1) Requirements: Closure of this facility shall comply with the following requirements, as in effect on the issue date of this permit and as may be amended subsequent to the issue date of this permit:
- (a) 40 CFR Part 258, as provided in the Department's "Guidance Document for the State Permitting of Municipal Solid Waste Landfills Regulated under Federal Rules (40 CFR 258) in New Hampshire";
  - (b) RSA 149-M;
  - (c) the New Hampshire Solid Waste Rules (ref. Env-Wm 100-300 & 2100-2800), specifically including Env-Wm 308, 310, 312, 2507 and 2600;
  - (d) all conditions of this permit;
  - (e) the Closure Plan found in Section 8 of the Permit Application, except as amended by the terms and conditions of this permit;
  - (f) the provisions of any other present or future requisite federal, state or local permits, licenses or approvals that apply to closure of this facility; and
  - (g) the terms of any authorization granted by the Department to construct any portion of the required closure system, pursuant to the provisions of Section IV of this permit.
- (2) The provisions of Sections III -V of this permit apply to the design and construction of the facility's closure systems.
- (3) The schedule for capping this facility shall conform to that provided in the Closure Plan presented in Section 8 of the Permit Application.
- (4) The permittee is responsible for implementing and meeting the requirements for landfill closure as set forth in Env-Wm 2507.03 and 2507.04, for whatever length of time is required to achieve the performance criteria specified in Env-Wm 2507.05(a)(1) -(4).

Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 23 of 24



Although the Rules contemplate in Env-Wm 2507.05 that such performance criteria may be met within 30 years of final capping the facility, the actual post-closure monitoring and maintenance period for this facility may be different than 30 years, to be determined by the Department on the basis of periodic review and evaluation of the post-closure monitoring data. Therefore, the permittee shall, no less than annually and in accordance with Env-Wm 311.07, prepare and submit an Annual Report that provides all required post-closure monitoring and maintenance data with an evaluation of that data by a qualified professional engineer licensed in New Hampshire. The evaluation shall characterize actual facility performance, identify any specific data trends that develop and assess the meaning of those trends as they may apply to meeting the performance criteria in Env-Wm 2507.05(a)(1)-(4).

(5) No later than 10 years following the date on final closure, but earlier if determined necessary by the Department, the post-closure monitoring and maintenance period shall be adjusted to reflect actual conditions at the facility. If such adjustment results in extending the post closure period beyond the 30 year period specified in Env-Wm 2507.05, the permittee shall provide additional financial assurance in accordance with Env-Wm 313 and Section IX of this permit.



Permit No. DES-SW-SP-95-001 / Terms & Conditions  
Waste Management of New Hampshire, Inc.  
TLR-III Refuse Disposal Facility  
Turnkey Recycling & Environmental Enterprises  
97 Rochester Neck Road  
Rochester, New Hampshire 03839  
April 10, 1995  
Page 24 of 24



## SECTION IX: Financial Assurance

(1) Cost Estimate: Pursuant to Env-Wm 313, an itemized estimate for the most current cost of closing this facility shall be calculated and maintained with facility records at all times. The cost of closure shall be determined on the basis of the facility's approved closure plan and information submitted per Section IV/Condition (1)(c) such that the permittee shall always maintain adequate funds to close the facility, if necessary, upon completion of any phase that is approved to operate, as though no subsequent phase will be built or operated. The estimate shall be updated no less than annually and submitted to the Department in accordance with Env-Wm 311.07(d). In addition, the most current estimate of record shall be otherwise updated and submitted prior to effecting any modification to facility operations that changes the estimate of record. Further, the Department reserves the right to require at any time that the cost estimate for facility closure, and the related financial assurance provisions, be amended to reflect actual facility operating costs and/or market conditions, or to reflect cost information that the Department may independently obtain that demonstrates the actual closure costs are different than the most current cost estimate of record.

(2) Proof of Financial Assurance: The permittee shall, no less than annually in accordance with the provisions of Env-Wm 311.07(d), provide proof of financial assurance based upon the current estimated cost of a third party to perform all required closure and post-closure work. (RSA 149-M:10, V-b and Env-Wm 313). Proof of financial assurance shall be provided by the permittee through one or a combination of the mechanisms identified in Env-Wm 313.02, and is subject to approval by the Department.

(3) Maintenance of Financial Assurance: Implementation and maintenance of an approved financial assurance plan is required to commence and continue operations of this facility. At no time during the life of this facility shall the permittee allow financial assurance for the cost of closure to lapse or to be underfunded.



Waste Management of Massachusetts  
600 New Ludlow Road  
South Hadley, MA 01075  
Phone # 413-534-8741, ext 222  
Fax# 413-532-2620

January 21, 2005

Eric Schweizer  
United Water Contract Services  
6 Mosher Drive  
Barrington, Rhode Island 02806

**RE: Response to Information Request**

Dear Eric:

We are in receipt of the 1/20/2005 fax request for information for the NPDES filing that United Water (UW) and the Springfield Water and Sewer Commission (SWSC) are currently preparing.

The request asked RCCI to provide information pertaining to sections B.3, B.4, B.5, B.6 and B.10 of the report. The following is RCCI's response to the request.

B.3: At the present time, RCCI is processing sewage sludge generated by UW and the SWSC and delivered to the RCCI facility. The RCCI plant is not currently producing a compost product for reuse and therefore this section is Not Applicable. All processed material is delivered to an approved solid waste facility, refer to response to B.10.

B.4: Not applicable, See B.3

B.5: Not Applicable, See B.3

B.6: Not Applicable, See B.3

B.10 See Attachment

If you have any questions concerning this matter please feel free to contact me at 413-534-8741, ext 222.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jonathan Murray'. Below the signature, the name 'Jonathan Murray' and title 'Sr. District Manager' are printed in a sans-serif font.

Jonathan Murray  
Sr. District Manager

Cc: Bruce Leiter, SWSC  
Marty Greany, RCCI



**Maltese, Ken**

**From:** Murray, Jonathan [jmurray2@wm.com]  
**Sent:** Wednesday, December 22, 2004 1:55 PM  
**To:** 'Maltese, Ken'  
**Subject:** RE: Springfield Project Coordination

Please fax to me at (413) 532-2620 and I will look at them.

-----Original Message-----

From: Maltese, Ken [mailto:Ken.Maltese@UnitedWater.com]  
 Sent: Wednesday, December 22, 2004 1:52 PM  
 To: Murray, Jonathan; Schweizer, Eric; Greany, Martin  
 Subject: RE: Springfield Project Coordination

Jonathan

I am in the process of filing an NPDES Renewal Application which, in part, requires identification of the sludge treatment and disposal. I'd like to discuss the information I need and fax copies of the blank forms for your review. Please give me a call (or have Marty come over to take a look).  
 413-237-7723

Thanks  
 Ken Maltese

-----Original Message-----

From: Murray, Jonathan [mailto:jmurray2@wm.com]  
 Sent: Monday, December 13, 2004 2:17 PM  
 To: 'Schweizer, Eric'; Greany, Martin  
 Cc: Maltese, Ken  
 Subject: RE: Springfield Project Coordination

Thanks for taking the time to meet with us this morning. I am glad we got to discuss the schedule for the change in the sludge deliveries.

As discussed please forward a written SOP or protocol for the measuring the sludge percent solids as it is delivered to us and the process for calculating the total dry tons delivered to RCCI annually.

Thanks Again!

-----Original Message-----

From: Schweizer, Eric [mailto:Eric.Schweizer@UnitedWater.com]  
 Sent: Friday, December 10, 2004 9:37 AM  
 To: Murray, Jonathan; Schweizer, Eric; Greany, Martin  
 Cc: Maltese, Ken  
 Subject: RE: Springfield Project Coordination

How about 10 AM.

-----Original Message-----

From: Murray, Jonathan [mailto:jmurray2@wm.com]  
 Sent: Friday, December 10, 2004 9:33 AM  
 To: 'Schweizer, Eric'; Greany, Martin  
 Cc: Maltese, Ken  
 Subject: RE: Springfield Project Coordination

What time?

-----Original Message-----

From: Schweizer, Eric [mailto:Eric.Schweizer@UnitedWater.com]  
Sent: Friday, December 10, 2004 8:36 AM  
To: Murray, Jonathan; Schweizer, Eric; Greany, Martin  
Cc: Maltese, Ken  
Subject: RE: Springfield Project Coordination

I will be in Springfield Monday morning - let's meet for coordination of the next few weeks.

-----Original Message-----

From: Murray, Jonathan [mailto:jmurray2@wm.com]  
Sent: Friday, December 10, 2004 8:01 AM  
To: 'Schweizer, Eric'; Greany, Martin  
Cc: Maltese, Ken  
Subject: RE: Springfield Project Coordination

I am available on Monday till about 1:00 then out for travel until Wednesday.

-----Original Message-----

From: Schweizer, Eric [mailto:Eric.Schweizer@UnitedWater.com]  
Sent: Thursday, December 09, 2004 8:17 PM  
To: Murray, Jonathan; Greany, Martin  
Cc: Maltese, Ken  
Subject: Springfield Project Coordination

Jonathan and Marty,

When can we meet? Soon I hope.

Eric



FACILITY NAME AND PERMIT NUMBER: MA0101613  
Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086

**C. LAND APPLICATION OF BULK SEWAGE SLUDGE**

Complete Section C for sewage sludge that is applied to the land, unless any of the following conditions apply:

- The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements, and one of vector attraction reduction options 1-8 (fill out B-4 instead); or
- The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B-5 instead); or
- You provide the sewage sludge to another facility for treatment or blending (fill out B-6 instead).

Complete Section C for every site on which the sewage sludge that you reported in Section B.7 is applied.

**C.1. Identification of Land Application Site.** NA

- a. Site name or number \_\_\_\_\_
- b. Site location (Complete 1 and 2).
1. Street or Route # \_\_\_\_\_
- County \_\_\_\_\_
- City or Town \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_
2. Latitude \_\_\_\_\_ Longitude \_\_\_\_\_
- Method of latitude/longitude determination
- \_\_\_\_\_ USGS map \_\_\_\_\_ Field survey \_\_\_\_\_ Other \_\_\_\_\_
- c. Topographic map: Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

**C.2. Owner Information.**

- a. Are you the owner of this land application site? \_\_\_\_\_ Yes \_\_\_\_\_ No
- b. If no, provide the following information about the owner:

Name \_\_\_\_\_

Telephone number \_\_\_\_\_

Mailing Address \_\_\_\_\_

**C.3. Applier Information.**

- a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?  
\_\_\_\_\_ Yes \_\_\_\_\_ No
- b. If no, provide the following information for the person who applies:

Name \_\_\_\_\_

Telephone number \_\_\_\_\_

Mailing Address \_\_\_\_\_

**C.4. Site Type: Identify the type of land application site from among the following.**

\_\_\_\_\_ Agricultural land \_\_\_\_\_ Forest \_\_\_\_\_ Public contact site  
\_\_\_\_\_ Reclamation site \_\_\_\_\_ Other. Describe: \_\_\_\_\_

FACILITY NAME AND PERMIT NUMBER: MA0101613  
Springfield Reagional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086

### C.5. Crop or Other Vegetation Grown on Site.

- a. What type of crop or other vegetation is grown on this site?

\_\_\_\_\_

- b. What is the nitrogen requirement for this crop or vegetation?

\_\_\_\_\_

### C.6. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?

\_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, answer C.6.a and C.6.b;

- a. Indicate which vector attraction reduction option is met:

\_\_\_\_\_ Option 9 (Injection below land surface)

\_\_\_\_\_ Option 10 (Incorporation into soil within 6 hours)

- b. Describe, on this form or another sheet of paper, any treatment processes used at the land application site to reduce vector attraction properties of sewage sludge:

\_\_\_\_\_

\_\_\_\_\_

Complete Question C.7 only if the sewage sludge applied to this site since July 20, 1993, is subject to the cumulative pollutant loading rates (CPLRs) in 40 CFR 503.13(b)(2).

### C.7. Cumulative Loadings and Remaining Allotments.

- a. Have you contacted the permitting authority in the State where the bulk sewage sludge subject to CPLRs will be applied, to ascertain whether bulk sewage sludge subject to CPLRs has been applied to this site on or since July 20, 1993? \_\_\_\_\_ Yes \_\_\_\_\_ No

If no, sewage sludge subject to CPLRs may not be applied to this site.

If yes, provide the following information:

Permitting authority \_\_\_\_\_

Contact Person \_\_\_\_\_

Telephone number \_\_\_\_\_

- b. Based upon this inquiry, has bulk sewage sludge subject to CPLRs been applied to this site since July 20, 1993?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

If no, skip C.7.c.



**FACILITY NAME AND PERMIT NUMBER:** MA0101613

Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086

- c. Provide the following information for every facility other than yours that is sending, or has sent, bulk sewage sludge to CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

Facility name

Mailing Address

Contact person

Title

Telephone number

FACILITY NAME AND PERMIT NUMBER: MA0101613  
Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086

**D. SURFACE DISPOSAL**

Complete this section if you own or operate a surface disposal site.

Complete Sections D.1 - D.5 for each active sewage sludge unit.

**D.1. Information on Active Sewage Sludge Units.**

- a. Unit name or number: \_\_\_\_\_
- b. Unit location (Complete 1 and 2).
1. Street or Route # \_\_\_\_\_  
County \_\_\_\_\_  
City or Town \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_
2. Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
Method of latitude/longitude determination: \_\_\_\_\_ USGS map \_\_\_\_\_ Field survey \_\_\_\_\_ Other \_\_\_\_\_
- c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
- d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: \_\_\_\_\_ dry metric tons
- e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: \_\_\_\_\_ dry metric tons
- f. Does the active sewage sludge unit have a liner with a maximum hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec? \_\_\_\_\_ Yes \_\_\_\_\_ No  
If yes, describe the liner (or attach a description):  
\_\_\_\_\_  
\_\_\_\_\_
- g. Does the active sewage sludge unit have a leachate collection system? \_\_\_\_\_ Yes \_\_\_\_\_ No  
If yes, describe the leachate collection system (or attach a description). Also describe the method used for leachate disposal and provide the numbers of any Federal, State, or local permit(s) for leachate disposal:  
\_\_\_\_\_  
\_\_\_\_\_
- h. If you answered no to either D.1.f. or D.1.g., answer the following question:  
Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site?  
\_\_\_\_\_ Yes \_\_\_\_\_ No  
If yes, provide the actual distance in meters: \_\_\_\_\_  
Provide the following information:  
Remaining capacity of active sewage sludge unit, in dry metric tons: \_\_\_\_\_ dry metric tons  
Anticipated closure date for active sewage sludge unit, if known: \_\_\_\_\_ (MM/DD/YYYY)  
Provide, with this application, a copy of any closure plan that has been developed for this active sewage sludge unit.



FACILITY NAME AND PERMIT NUMBER: MA0101613

Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086**D.2. Sewage Sludge from Other Facilities.** Is sewage sent to this active sewage sludge unit from any facilities other than your facility?☐ Yes ☐ No

If yes, provide the following information for each such facility. If sewage sludge is sent to this active sewage sludge unit from more than one such facility, attach additional pages as necessary.

a. Facility name \_\_\_\_\_

b. Mailing Address \_\_\_\_\_  
\_\_\_\_\_

c. Contact person \_\_\_\_\_

Title \_\_\_\_\_

Telephone number \_\_\_\_\_

d. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?

☐ Class A ☐ Class B ☐ None or unknown

e. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge:

\_\_\_\_\_  
\_\_\_\_\_

f. Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

- ☐ Option 1 (Minimum 38 percent reduction in volatile solids)  
☐ Option 2 (Anaerobic process, with bench-scale demonstration)  
☐ Option 3 (Aerobic process, with bench-scale demonstration)  
☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)  
☐ Option 5 (Aerobic processes plus raised temperature)  
☐ Option 6 (Raise pH to 12 and retain at 11.5)  
☐ Option 7 (75 percent solids with no unstabilized solids)  
☐ Option 8 (90 percent solids with unstabilized solids)  
☐ None or unknown

g. Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge

\_\_\_\_\_  
\_\_\_\_\_

h. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in (d) - (g) above:

\_\_\_\_\_  
\_\_\_\_\_**D.3. Vector Attraction Reduction**

a. Which vector attraction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?

- ☐ Option 9 (Injection below and surface)  
☐ Option 10 (Incorporation into soil within 6 hours)  
☐ Option 11 (Covering active sewage sludge unit daily)

FACILITY NAME AND PERMIT NUMBER: MA0101613  
Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086

**D.3. Vector Attraction Reduction. (con't)**

- b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge:

---

---

**D.4. Ground-Water Monitoring.**

- a. Is ground-water monitoring currently conducted at this active sewage sludge unit, or are ground-water monitoring data otherwise available for this active sewage sludge unit?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, provide a copy of available ground-water monitoring data. Also, provide a written description of the well locations, the approximate depth to ground-water, and the ground-water monitoring procedures used to obtain these data.

---

---

- b. Has a ground-water monitoring program been prepared for this active sewage sludge unit? \_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, submit a copy of the ground-water monitoring program with this permit application.

- c. Have you obtained a certification from a qualified ground-water scientist that the aquifer below the active sewage sludge unit has not been contaminated? \_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, submit a copy of the certification with this permit application.

- D.5. Site-Specific Limits.** Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, submit information to support the request for site-specific pollutant limits with this application.



FACILITY NAME AND PERMIT NUMBER: MA0101613

Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086**E. INCINERATION**

Complete this section if you fire sewage sludge in a sewage sludge incinerator.

Complete this section once for each incinerator in which you fire sewage sludge. If you fire sewage sludge in more than one sewage sludge incinerator, attach additional copies of this section as necessary.

**E.1. Incinerator Information.**

a. Incinerator name or number: \_\_\_\_\_

b. Incinerator location (Complete 1 and 2).

1. Street or Route # \_\_\_\_\_

County \_\_\_\_\_

City or Town \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

2. Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Method of latitude/longitude determination: \_\_\_\_\_ USGS map \_\_\_\_\_ Field survey \_\_\_\_\_ Other \_\_\_\_\_

**E.2. Amount Fired.** Dry metric tons per 365-day period of sewage sludge fired in the sewage sludge incinerator: \_\_\_\_\_ dry metric tons**E.3. Beryllium NESHAP.**

a. Is the sewage sludge fired in this incinerator "beryllium-containing waste," as defined in 40 CFR Part 61.31? \_\_\_\_\_ Yes \_\_\_\_\_ No

Submit, with this application, information, test data, and description of measures taken that demonstrate whether the sewage sludge incinerated is beryllium-containing waste, and will continue to remain as such.

b. If the answer to (a) is yes, submit with this application a complete report of the latest beryllium emission rate testing and documentation of ongoing incinerator operating parameters indicating that the NESHAP emission rate limit for beryllium has been and will continue to be met.

**E.4. Mercury NESHAP.**

a. How is compliance with the mercury NESHAP being demonstrated?

\_\_\_\_\_ Stack testing (if checked, complete E.4.b)

\_\_\_\_\_ Sewage sludge sampling (if checked, complete E.4.c)

b. If stack testing is conducted, submit the following information with this application:

A complete report of stack testing and documentation of ongoing incinerator operating parameters indicating that the incinerator has met, and will continue to meet, the mercury NESHAP emission rate limit.

Copies of mercury emission rate tests for the two most recent years in which testing was conducted.

c. If sewage sludge sampling is used to demonstrate compliance, submit a complete report of sewage sludge sampling and documentation of ongoing incinerator operating parameters indicating that the incinerator has met, and will continue to meet the mercury NESHAP emission rate limit.

**E.5. Dispersion Factor.**

a. Dispersion factor, in micrograms/cubic meter per gram/second: \_\_\_\_\_

b. Name and type of dispersion model: \_\_\_\_\_

c. Submit a copy of the modeling results and supporting documentation with this application.

FACILITY NAME AND PERMIT NUMBER: MA0101613

Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086**E.6. Control Efficiency.**

- a. Control efficiency, in hundredths, for the following pollutants:

Arsenic: \_\_\_\_\_ Chromium: \_\_\_\_\_ Nickel: \_\_\_\_\_  
 Cadmium: \_\_\_\_\_ Lead: \_\_\_\_\_

- b. Submit a copy of the results or performance testing and supporting documentation (including testing dates) with this application.

**E.7. Risk Specific Concentration for Chromium.**

- a. Risk specific concentration (RSC) used for chromium, in micrograms per cubic meter: \_\_\_\_\_

- b. Which basis was used to determine the RSC?

\_\_\_\_ Table 2 in 40 CFR 503.43

\_\_\_\_ Equation 6 in 40 CFR 503.43 (site-specific determination)

- c. If Table 2 was used, identify the type of incinerator used as the basis:

\_\_\_\_ Fluidized bed with wet scrubber

\_\_\_\_ Fluidized bed with wet scrubber and wet electrostatic precipitator

\_\_\_\_ Other types with wet scrubber

\_\_\_\_ Other types with wet scrubber and wet electrostatic precipitator

- d. If Equation 6 was used, provide the following:

Decimal fraction of hexavalent chromium concentration to total chromium concentration in stack exit gas: \_\_\_\_\_

Submit results of incinerator stack tests for hexavalent and total chromium concentrations, including date(s) of test, with this application.

**E.8. Incinerator Parameters**

- a. Do you monitor Total Hydrocarbons (THC) in the sewage sludge incinerator's exit gas? \_\_\_\_\_ Yes \_\_\_\_\_ No

Do you monitor Carbon Monoxide (CO) in the sewage sludge incinerator's exit gas? \_\_\_\_\_ Yes \_\_\_\_\_ No

- b. Incinerator type: \_\_\_\_\_

- c. Incinerator stack height, in meters: \_\_\_\_\_

Indicate whether value submitted is: \_\_\_\_\_ Actual stack height \_\_\_\_\_ Creditable stack height

**E.9. Performance Test Operating Parameters**

- a. Maximum Performance Test Combustion Temperature: \_\_\_\_\_

- b. Performance test sewage sludge feed rate, in dry metric tons/day: \_\_\_\_\_

indicate whether value submitted is:

\_\_\_\_ Average use \_\_\_\_\_ Maximum design

Submit, with this application, supporting documents describing how the feed rate was calculated.

- c. Submit, with this application, information documenting the performance test operating parameters for the air pollution control device(s) used for this sewage sludge incinerator.



FACILITY NAME AND PERMIT NUMBER: MA0101613

Springfield Regional Wastewater Treatment Facility

Form Approved 1/14/99  
OMB Number 2040-0086

**E.10. Monitoring Equipment.** List the equipment in place to monitor the following parameters:

- a. Total hydrocarbons or carbon monoxide: \_\_\_\_\_
- b. Percent oxygen: \_\_\_\_\_
- c. Moisture content: \_\_\_\_\_
- d. Combustion temperature: \_\_\_\_\_
- e. Other: \_\_\_\_\_

**E.11. Air Pollution Control Equipment.** Submit, with this application, a list of all air pollution control equipment used with this sewage sludge incinerator.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Question: 25-B6h

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

REPORT DATE 11/10/2004

U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001  
ATTN: JOHN COLBURN

CONTRACT NUMBER:  
PURCHASE ORDER NUMBER:

PROJECT NUMBER:

## ANALYTICAL SUMMARY

LIMS BAT #: LIMS-83340

JOB NUMBER: -

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

## PROJECT LOCATION:

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	
*2241	04B35463	SLUDGE	NOT SPECIFIED	tcip-metals-full	
*2241	04B35463	SLUDGE	NOT SPECIFIED	tcip-pestic-full	
*2241	04B35463	SLUDGE	NOT SPECIFIED	tcip-semivo-full	
*2241	04B35463	SLUDGE	NOT SPECIFIED	tcip-volati-full	
*2241	04B35464	SLUDGE	NOT SPECIFIED	tcip-herbic-full	SUBCONTRACTED
*2241	04B35465	SLUDGE	NOT SPECIFIED	8260 dry weight	
*2241	04B35465	SLUDGE	NOT SPECIFIED	8270 dry weight	
*2241	04B35465	SLUDGE	NOT SPECIFIED	solids (percent)	

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations :

AIHA 100033	AIHA ELLAP (LEAD) - 100033	
MASSACHUSETTS MA0100	NEW HAMPSHIRE NELAP 2516	NEW JERSEY NELAP NJ MA007 (AIR)
CONNECTICUT PH-0567	VERMONT DOH (LEAD) No. LL015036	ARIZONA AZ0648
NEW YORK ELAP/NELAP 10899	RHODE ISLAND (LIC. No. 112)	ARIZONA AZ0654 (AIR)

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

*Sondra S. Kocot* 11/10/04

SIGNATURE

DATE

Tod Kopyscinski  
Director of Operations

Sondra S. Kocot  
Quality Control Coordinator

Edward Denson  
Technical Director

\* See end of data tabulation for notes and comments pertaining to this sample

Springfield Regional Wastewater Treatment Facility  
NPDES 0101613 and MA0103331 (CSO)  
Outfall 041

14 pages



JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 1 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID : 04B35465

Sampled : 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Acetone	mg/kg dry wt	141.	11/02/04	MFF	0.412		
Acrolein	mg/kg dry wt	ND	11/02/04	MFF	0.165		
Acrylonitrile	mg/kg dry wt	ND	11/02/04	MFF	0.041		
tert-Amylmethyl Ether	mg/kg dry wt	ND	11/02/04	MFF	0.004		
Benzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
Bromobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Bromochloromethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Bromodichloromethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Bromoform	mg/kg dry wt	ND	11/02/04	MFF	0.010		
Bromomethane	mg/kg dry wt	ND	11/02/04	MFF	0.010		
2-Butanone (MEK)	mg/kg dry wt	114.	11/02/04	MFF	0.099		
tert-Butyl Alcohol	mg/kg dry wt	ND	11/02/04	MFF	0.165		
n-Butylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.006		
sec-Butylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
tert-Butylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.007		
tert-Butylethyl Ether	mg/kg dry wt	ND	11/02/04	MFF	0.004		
Carbon Disulfide	mg/kg dry wt	0.165	11/02/04	MFF	0.025		
Carbon Tetrachloride	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Chlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
Chlorodibromomethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Chloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
2-Chloroethylvinylether	mg/kg dry wt	ND	11/02/04	MFF	0.079		
Chloroform	mg/kg dry wt	0.017	11/02/04	MFF	0.016		
Chloromethane	mg/kg dry wt	ND	11/02/04	MFF	0.124		
2-Chlorotoluene	mg/kg dry wt	0.006	11/02/04	MFF	0.005		
4-Chlorotoluene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
1,2-Dibromo-3-Chloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.013		
1,2-Dibromoethane	mg/kg dry wt	ND	11/02/04	MFF	0.006		
Dibromomethane	mg/kg dry wt	ND	11/02/04	MFF	0.009		
1,2-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.007		

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

 JOHN COLBURN  
 U. S. WATER - SPRINGFIELD  
 190 M. STREET  
 AGAWAM, MA 01001

 11/10/2004  
 Page 2 of 13

Purchase Order No.:

Project Location:

LIMS-BAT #: LIMS-83340

Date Received: 10/22/2004

Job Number: -

Field Sample #: 2241

Sample ID: 04B35465

 Sampled: 10/20/2004  
 NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
1,3-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
1,4-Dichlorobenzene	mg/kg dry wt	0.014	11/02/04	MFF	0.007		
cis-1,4-Dichloro-2-Butene	mg/kg dry wt	ND	11/02/04	MFF	0.020		
trans-1,4-Dichloro-2-Butene	mg/kg dry wt	ND	11/02/04	MFF	0.017		
Dichlorodifluoromethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
1,1-Dichloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,2-Dichloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
1,1-Dichloroethylene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
cis-1,2-Dichloroethylene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
trans-1,2-Dichloroethylene	mg/kg dry wt	ND	11/02/04	MFF	0.007		
1,2-Dichloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.005		
1,3-Dichloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
2,2-Dichloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
1,1-Dichloropropene	mg/kg dry wt	ND	11/02/04	MFF	0.012		
cis-1,3-Dichloropropene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
trans-1,3-Dichloropropene	mg/kg dry wt	ND	11/02/04	MFF	0.004		
Diethyl Ether	mg/kg dry wt	ND	11/02/04	MFF	0.016		
Diisopropyl Ether	mg/kg dry wt	ND	11/02/04	MFF	0.004		
1,4-Dioxane	mg/kg dry wt	ND	11/02/04	MFF	0.412		
Ethyl Benzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
Ethyl Methacrylate	mg/kg dry wt	ND	11/02/04	MFF	0.007		
Hexachlorobutadiene	mg/kg dry wt	ND	11/02/04	MFF	0.011		
2-Hexanone	mg/kg dry wt	0.446	11/02/04	MFF	0.080		
Iodomethane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
Isopropylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.005		
p-Isopropyltoluene	mg/kg dry wt	0.015	11/02/04	MFF	0.006		
MTBE	mg/kg dry wt	ND	11/02/04	MFF	0.007		
Methylene Chloride	mg/kg dry wt	ND	11/02/04	MFF	0.124		
MIBK	mg/kg dry wt	ND	11/02/04	MFF	0.073		
Naphthalene	mg/kg dry wt	ND	11/02/04	MFF	0.008		

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 3 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID : 04B35465

Sampled : 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
n-Propylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.007		
Styrene	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,1,1,2-Tetrachloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.008		
1,1,2,2-Tetrachloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.012		
Tetrachloroethylene	mg/kg dry wt	0.010	11/02/04	MFF	0.008		
Tetrahydrofuran	mg/kg dry wt	ND	11/02/04	MFF	0.041		
Toluene	mg/kg dry wt	10.5	11/02/04	MFF	0.006		
1,2,3-Trichlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,2,4-Trichlorobenzene	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,1,1-Trichloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.007		
1,1,2-Trichloroethane	mg/kg dry wt	ND	11/02/04	MFF	0.006		
Trichloroethylene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Trichlorofluoromethane	mg/kg dry wt	ND	11/02/04	MFF	0.006		
1,2,3-Trichloropropane	mg/kg dry wt	ND	11/02/04	MFF	0.011		
1,2,4-Trimethylbenzene	mg/kg dry wt	0.032	11/02/04	MFF	0.008		
1,3,5-Trimethylbenzene	mg/kg dry wt	ND	11/02/04	MFF	0.008		
Vinyl Acetate	mg/kg dry wt	ND	11/02/04	MFF	0.135		
Vinyl Chloride	mg/kg dry wt	ND	11/02/04	MFF	0.008		
m + p Xylene	mg/kg dry wt	ND	11/02/04	MFF	0.011		
o-Xylene	mg/kg dry wt	ND	11/02/04	MFF	0.008		

Analytical Method:

SW846 8260

SAMPLES ARE CONCENTRATED BY PURGE & TRAP, FOLLOWED BY GC/MS TARGET COMPOUND ANALYSIS.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 4 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID : 04B35465

Sampled : 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Acenaphthene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Acenaphthylene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Acetophenone	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Aniline	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Anthracene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benidine	mg/kg dry wt	ND	11/02/04	BGL	11.7		
Benzoic Acid	mg/kg dry wt	ND	11/02/04	BGL	5.03		
Benzo(a)anthracene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzo(a)pyrene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzo(b)fluoranthene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzo(g,h,i)perylene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzo(k)fluoranthene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Benzyl Alcohol	mg/kg dry wt	ND	11/02/04	BGL	3.35		
1,1-Biphenyl	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Bis(2-chloroethoxy)methane	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Bis(2-chloroethyl)ether	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Bis(2-chloroisopropyl)ether	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Bis(2-ethylhexyl)phthalate	mg/kg dry wt	8.50	11/02/04	BGL	1.68		
4-Bromophenyl phenyl ether	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Butylbenzylphthalate	mg/kg dry wt	ND	11/02/04	BGL	3.35		
4-Chloroaniline	mg/kg dry wt	ND	11/02/04	BGL	3.35		
4-Chloro-3-methylphenol	mg/kg dry wt	ND	11/02/04	BGL	3.35		
2-Chloronaphthalene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2-Chlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
4-Chlorophenylphenyl ether	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Chrysene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Dibenzofuran	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Dibenz(a,h)anthracene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
1,2-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,3-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 5 of 13

Purchase Order No.:

Project Location:

Date Received: 10/22/2004

Field Sample #: 2241

LIMS-BAT #: LIMS-83340

Job Number: -

Sample ID : 04B35465

Sampled : 10/20/2004

NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/F
1,4-Dichlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
3,3'-Dichlorobenzidine	mg/kg dry wt	ND	11/02/04	BGL	0.84		
2,4-Dichlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Diethylphthalate	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,4-Dimethylphenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Dimethylphthalate	mg/kg dry wt	ND	11/02/04	BGL	3.35		
Di-n-butylphthalate	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Di-n-octylphthalate	mg/kg dry wt	ND	11/02/04	BGL	3.35		
1,2-Dinitrobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,3-Dinitrobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,4-Dinitrobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
4,6-Dinitro-2-methylphenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,4-Dinitrophenol	mg/kg dry wt	ND	11/02/04	BGL	3.35		
2,4-Dinitrotoluene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,6-Dinitrotoluene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,2-Diphenylhydrazine (as Azobenzene)	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Fluoranthene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Fluorene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Hexachlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Hexachlorobutadiene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Hexachlorocyclopentadiene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Hexachloroethane	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Indeno(1,2,3-cd)pyrene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Isophorone	mg/kg dry wt	ND	11/02/04	BGL	1.68		
o-cresol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
m & p-cresol(s)	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2-Methylnaphthalene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Naphthalene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
2-Nitroaniline	mg/kg dry wt	ND	11/02/04	BGL	1.68		

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

 JOHN COLBURN  
 U. S. WATER - SPRINGFIELD  
 190 M. STREET  
 AGAWAM, MA 01001

 11/10/2004  
 Page 6 of 13

Purchase Order No.:

 Project Location:  
 Date Received: 10/22/2004  
 Field Sample #: 2241

 LIMS-BAT #: LIMS-83340  
 Job Number: -

Sample ID: 04B35465

 Sampled: 10/20/2004  
 NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
3-Nitroaniline	mg/kg dry wt	ND	11/02/04	BGL	1.68		
4-Nitroaniline	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Nitrobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2-Nitrophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
4-Nitrophenol	mg/kg dry wt	ND	11/02/04	BGL	3.35		
N-Nitrosodimethylamine	mg/kg dry wt	ND	11/02/04	BGL	1.68		
N-Nitrosodiphenylamine	mg/kg dry wt	ND	11/02/04	BGL	1.68		
N-Nitroso-di-n-propylamine	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Pentachlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Phenanthrene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Phenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
Pyrene	mg/kg dry wt	ND	11/02/04	BGL	0.84		
Pyridine	mg/kg dry wt	ND	11/02/04	BGL	1.68		
1,2,4-Trichlorobenzene	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,4,5-Trichlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		
2,4,6-Trichlorophenol	mg/kg dry wt	ND	11/02/04	BGL	1.68		

Analytical Method:

SW846 8270

 SAMPLES ARE EXTRACTED IN METHYLENE CHLORIDE/ACETONE AND  
 FOLLOWED BY GC/MS TARGET COMPOUND ANALYSIS.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

 SPEC LIMIT = a client specified recommended or  
 regulatory level for comparison with data to  
 determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample



39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 7 of 13

Purchase Order No.:

Project Location:

LIMS-BAT #: LIMS-83340

Date Received: 10/22/2004

Job Number: -

Field Sample #: 2241

Sample ID: 04B35465

Sampled: 10/20/2004

NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Solids, total	%	19.9	10/28/04	LL			

Analytical Method:

SM 2540G

PERCENT OF SAMPLE REMAINING AFTER DRYING OVERNIGHT AT 103-105 DEGREES  
CENTIGRADE.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or  
regulatory level for comparison with data to  
determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

JOHN COLBURN  
 U. S. WATER - SPRINGFIELD  
 190 M. STREET  
 AGAWAM, MA 01001

11/10/2004  
 Page 8 of 13

Purchase Order No.:

Project Location:  
 Date Received: 10/22/2004  
 Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
 Job Number: -

Sample ID: 04B35464      Sampled: 10/20/2004  
 NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo      Hi	P/ F
2,4-D	MG/L TCLP	ND	11/04/04	PEL	0.005	10	P
2,4,5-TP	MG/L TCLP	ND	11/04/04	PEL	0.001	1	P

Analytical Method:  
 SW846 1311/8150

SAMPLES ARE EXTRACTED FOR 18-24 HOURS AT pH 5.0, FOLLOWED BY LIQUID/LIQUID EXTRACTION AND DERIVATIZATION. ANALYSIS IS BY GAS CHROMATOGRAPHY WITH ELECTRON CAPTURE DETECTION.

RL = Reporting Limit  
 ND = Not Detected  
 NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample





39 Spruce Street ° 2nd Floor ° East Longmeadow, MA 01028 ° FAX 413/525-6405 ° TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 9 of 13

Purchase Order No.:

LIMS-BAT #: LIMS-83340

Project Location:

Job Number: -

Date Received: 10/22/2004

Field Sample #: 2241

Sample ID: 04B35463

Sampled: 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
						Lo	Hi	
Arsenic	mg/l leachate	ND	11/02/04	KRL	0.10		5	P
Barium	mg/l leachate	0.31	11/02/04	KRL	0.05		100	P
Cadmium	mg/l leachate	ND	11/02/04	KRL	0.005		1	P
Chromium	mg/l leachate	ND	11/02/04	KRL	0.05		5	P
Lead	mg/l leachate	ND	11/02/04	KRL	0.02		5	P
Mercury	mg/l leachate	ND	11/01/04	JTB	0.00004		0.2	P
Selenium	mg/l leachate	ND	11/02/04	KRL	0.10		1	P
Silver	mg/l leachate	ND	11/02/04	KRL	0.05		5	P

Analytical Method:

SW846 1311/6010 1311/7470

SW846 1311 TCLP EXTRACTION. SAMPLES ARE EXTRACTED FOR 18-24 HOURS INTO A pH 5.0 BUFFER SOLUTION TO PRODUCE A LEACHATE. WATER SAMPLES ARE FILTERED, NOT EXTRACTED.

SW846 6010 ARSENIC, BARIUM, CADMIUM, CHROMIUM, LEAD, SELENIUM AND SILVER LEACHATES ARE ANALYZED BY INDUCTIVELY COUPLED PLASMA EMISSION SPECTROMETRY.

SW846 7470 MERCURY LEACHATE IS ANALYZED BY COLD VAPOR (FLAMELESS) ATOMIC ABSORPTION SPECTROPHOTOMETRY.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

JOHN COLBURN  
 U. S. WATER - SPRINGFIELD  
 190 M. STREET  
 AGAWAM, MA 01001

 11/10/2004  
 Page 10 of 13

Purchase Order No.:

 Project Location:  
 Date Received: 10/22/2004  
 Field Sample #: 2241

 LIMS-BAT #: LIMS-83340  
 Job Number: -

Sample ID : \*04B35463

 Sampled : 10/20/2004  
 NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
gamma-BHC (Lindane)	MG/L TCLP	ND	11/05/04	JB	0.001	0.4	P
Total Chlordane	MG/L TCLP	ND	11/05/04	JB	0.004	0.03	P
Endrin	MG/L TCLP	ND	11/05/04	JB	0.001	0.02	P
Heptachlor	MG/L TCLP	ND	11/05/04	JB	0.001	0.008	P
Heptachlor Epoxide	MG/L TCLP	ND	11/05/04	JB	0.001	0.008	P
Methoxychlor	MG/L TCLP	ND	11/05/04	JB	0.010	10	P
Toxaphene	MG/L TCLP	ND	11/05/04	JB	0.020	0.5	P

## Analytical Method:

SW846 1311/3510/8081

 SAMPLES ARE EXTRACTED ACCORDING TO TCLP, FOLLOWED BY LIQUID/LIQUID  
 EXTRACTION INTO METHYLENE CHLORIDE/HEXANE, EVAPORATION AND ANALYSIS BY  
 GAS CHROMATOGRAPHY WITH ELECTRON CAPTURE DETECTION.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

 SPEC LIMIT = a client specified recommended or  
 regulatory level for comparison with data to  
 determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample





39 Spruce Street \* 2nd Floor \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004

Page 11 of 13

Purchase Order No.:

Project Location:

LIMS-BAT #: LIMS-83340

Date Received: 10/22/2004

Job Number: -

Field Sample #: 2241

Sample ID: \*04B35463

Sampled: 10/20/2004

NOT SPECIFIED

Sample Matrix: SLUDGE

	Units		Results	Date Analyzed	Analyst	RL	SPEC Limit		P/ F
							Lo	Hi	
2,4-Dinitrotoluene	MG/L	TCLP	ND	11/04/04	BGL	0.05		0.13	P
Hexachlorobenzene	MG/L	TCLP	ND	11/04/04	BGL	0.05		0.13	P
Hexachlorobutadiene	MG/L	TCLP	ND	11/04/04	BGL	0.05		0.5	P
Hexachloroethane	MG/L	TCLP	ND	11/04/04	BGL	0.05		3	P
o-cresol	MG/L	TCLP	ND	11/04/04	BGL	0.05		200	P
m & p-cresol(s)	MG/L	TCLP	0.86	11/04/04	BGL	0.05		200	P
Nitrobenzene	MG/L	TCLP	ND	11/04/04	BGL	0.05		2	P
Pentachlorophenol	MG/L	TCLP	ND	11/04/04	BGL	0.05		100	P
Pyridine	MG/L	TCLP	ND	11/04/04	BGL	0.05		5	P
2,4,5-Trichlorophenol	MG/L	TCLP	ND	11/04/04	BGL	0.05		400	P
2,4,6-Trichlorophenol	MG/L	TCLP	ND	11/04/04	BGL	0.05		2	P

Analytical Method:

SW846 1311/8270

SAMPLES ARE EXTRACTED INTO pH 5.0 BUFFER FOR 18-22 HOURS. THIS EXTRACT IS THEN EXTRACTED WITH METHYLENE CHLORIDE, FOLLOWED BY KUDERNA-DANISH EVAPORATIVE CONCENTRATION AND QUANTITATION BY GC/MS WITH TARGET COMPOUND ANALYSIS.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample

39 Spruce Street \* 2nd Floor \* East Longmeadow, MA 01028 \* FAX 413/525-6405 \* TEL. 413/525-2332

JOHN COLBURN  
U. S. WATER - SPRINGFIELD  
190 M. STREET  
AGAWAM, MA 01001

11/10/2004  
Page 12 of 13

Purchase Order No.:

Project Location:  
Date Received: 10/22/2004  
Field Sample #: 2241

LIMS-BAT #: LIMS-83340  
Job Number: -

Sample ID: \*04B35463

Sampled: 10/20/2004  
NOT SPECIFIED

Sample Matrix: SLUDGE

	Units	Results	Date Analyzed	Analyst	RL	SPEC Limit Lo Hi	P/ F
Benzene	MG/L TCLP	ND	11/01/04	BGL	0.006	0.5	P
2-Butanone (MEK)	MG/L TCLP	1.91	11/01/04	BGL	0.120	200	P
Carbon Tetrachloride	MG/L TCLP	ND	11/01/04	BGL	0.005	0.5	P
Chlorobenzene	MG/L TCLP	ND	11/01/04	BGL	0.006	100	P
Chloroform	MG/L TCLP	ND	11/01/04	BGL	0.008	6	P
1,4-Dichlorobenzene	MG/L TCLP	ND	11/01/04	BGL	0.008	7.5	P
1,2-Dichloroethane	MG/L TCLP	ND	11/01/04	BGL	0.009	0.5	P
1,1-Dichloroethylene	MG/L TCLP	ND	11/01/04	BGL	0.006	0.7	P
Tetrachloroethylene	MG/L TCLP	ND	11/01/04	BGL	0.004	0.7	P
Trichloroethylene	MG/L TCLP	ND	11/01/04	BGL	0.010	0.5	P
Vinyl Chloride	MG/L TCLP	ND	11/01/04	BGL	0.003	0.2	P

Analytical Method:  
SW846 1311/8260

SAMPLES ARE EXTRACTED WITH ZERO HEADSPACE (ZHE) INTO A pH 5.0 BUFFER SOLUTION FOR 18-22 HOURS. VOLATILE COMPONENTS ARE THEN QUANTITATED BY GC/MS WITH PURGE AND TRAP CONCENTRATION AND TARGET COMPOUND ANALYSIS.

RL = Reporting Limit

ND = Not Detected

NM = Not Measured

SPEC LIMIT = a client specified recommended or regulatory level for comparison with data to determine PASS (P) or FAIL (F) condition of results.

\* = See end of report for comments and notes applying to this sample